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OVERSIGHT HEARING ON THE MANAGEMENT PRACTICES OF THE U.S. FOREST SERVICE AND BELOW-COST TIMBER SALES

HEARING

BEFORE THE

SUBCOMMITTEE ON
CONSERVATION AND FORESTRY

OF THE

COMMITTEE ON AGRICULTURE,
NUTRITION, AND FORESTRY
UNITED STATES SENATE

ONE HUNDRED FIRST CONGRESS

FIRST SESSION

ON

BELOW-COST TIMBER SALES, URBAN FORESTRY INTERFACE AND BIODIVERSITY

OCTOBER 30, 1989—ATLANTA, GA

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OVERSIGHT HEARING ON THE MANAGEMENT PRACTICES OF THE U.S. FOREST SERVICE AND BELOW-COST TIMBER SALES

MONDAY, OCTOBER 30, 1989

U.S. SENATE,
SUBCOMMITTEE ON CONSERVATION AND FORESTRY OF THE
COMMITTEE ON AGRICULTURE, NUTRITION, AND FORESTRY,
Atlanta, GA.

The subcommittee met, pursuant to notice, at 8 a.m., Georgia Supreme Court Building, Atlanta, GA, Hon. Wyche Fowler, Jr. (chairman of the subcommittee) presiding.

Present or submitting a statement: Senator Fowler.

STATEMENT OF HON. WYCHE FOWLER, JR., A U.S. SENATOR FROM GEORGIA

Senator FOWLER. Lately we are reading and wringing our hands a lot about deforestation in the tropics. The truth is that we have a questionable record of stewardship at home. On public lands, we are clearcutting forests on public lands to sell the trees at a loss. As urban growth turns to urban sprawl, and as our citizens have narrower and narrower options for enjoying unspoiled nature, nearby national forests compete with ambitious logging programs and escalating recreational demands.

At today's hearing we are going to look at the pressures from the 230 million visitors a year, and from the practice of below-cost timber sales in our National Forest System.

In addition, as forest land throughout the country comes under greater and greater pressure from every kind of use and development, we run the risk of consigning many native animal species to extinction. That is why we want to look at the issue of biodiversity in this hearing.

I have made no secret of my belief that, in the course of meeting these challenges, we must ensure fiscal and environmental responsibility to the Forest Service.

Tremendous economic and environmental harm can be caused by roadbuilding programs—for which we are slated to spend $190 million this year—in order to conduct timber sales that often lose money for the Treasury and increase the budget deficit.

These roads destroy fish and wildlife habitats, disturb migration routes and degrade water quality. Roadbuilding and clearcutting in our national forests has been found to cause erosion levels at more than 100 times those of undisturbed sites. In the Western part of the United States, extensive damage to critical salmon spawning areas has decreased the value of the region's sport and commercial fisheries.

The timber sales that motivate such damage lost $5.5 million in Southeastern forests in 1987. That is the Forest Service's own figure. They lost $1.6 million here in Georgia. It is estimated that, nationwide, these below-cost timber sales will lose $2 billion over the next decade—as the current Forest Service plans anticipate considerable expansion of its logging and roadbuilding operations.

To be absolutely candid I cannot for the life of me figure out exactly why this controversy exists, why our Forest Service is not at the forefront of the fight to protect our forests from excessive timbering, to ensure wildlife diversity and the survival of the threatened woodland species, and to preserve some semblance of the scenic grandeur and natural wonder of our forests for our children.

The Forest Service says roadbuilding is important to provide access for hunters and fishermen. It does not say why the more than 340,000 miles of existing roads in our national forests are not adequate for that purpose. And the environmental damage caused by roadbuilding is certainly no boon to fish and game.

Timber targets seem to come before all other considerations, including the expense of the timber program itself. The Forest Service fails to recover its direct costs of roadbuilding, stand management and sale administration. Consistently, 73 of 120 national forests lose money on timber sales. Yet we continue to find the money to finance roadbuilding and below-cost timber sales.

The Service does not seem to have equal success allocating its budgetary resources for fish and wildlife protection, preservation of scenic vistas, or for meeting growing demands for back-country recreation. It is only by direct congressional order that the Forest Service began, in the last 2 years, to keep any record of the negative economic impacts of its roadbuilding programs and deficit timber sales.

It seems to me, that we have to return to the basic notion that our national forests are public lands, not private tree farms. We have also got to ask ourselves why we are draining the Federal Treasury, in a time of massive budget deficits, so that subsidized timber can compete with private forestry?

Congress has written laws in 1960, 1964, 1974, 1976, and 1987 to express this intent to emphasize broader public purposes and to exclude lands unfit for timber production in national forest management. But the Service continues to frustrate these efforts, as this year, with the help of a small and dwindling minority in Congress. Chief Robertson, do we not share the same goals? Do we have to write more, stricter laws to achieve a more public purpose? If so, I am listening, and I have got my pen ready.

This resource simply is too valuable to be wasted. There are too many economic and ecological benefits of undisturbed forests that are being overlooked. That is why we are here today.

I would now like to call our first panel of witnesses, Mr. F. Dale Robertson, Chief, U.S. Forest Service, out of Washington, D.C.; accompanied by Mr. Jack Alcock, Regional Forester, Southern Region, here in Atlanta; and Mr. Ken Henderson, Forest Supervisor, Chattahoochee National Forest, from Gainesville. Also, Mr.

Joseph Cipcic, president of the Adventure Catalog. If you gentlemen would just come on down.

[Brief pause.]

Senator FOWLER. Chief, please proceed, if you will. As you know, you can start with a summary of your testimony and then we will have some discussion. I appreciate very much your being here.

STATEMENT OF F. DALE ROBERTSON, CHIEF, FOREST SERVICE, U.S. DEPARTMENT OF AGRICULTURE, WASHINGTON, DC; ACCOMPANIED BY JOHN E. (JACK) ALCOCK, REGIONAL FORESTER, SOUTHERN REGION, ATLANTA, GA, AND KEN HENDERSON, FOREST SUPERVISOR, CHATTAHOOCHEE AND OCONEE NATIONAL FOREST, GAINESVILLE, GA

Mr. ROBERTSON. Thank you. I am glad to be here.

I SHARE ALL OF THE GOALS THAT YOU HAVE TALKED ABOUT

I might just say at the outset, Senator Fowler, that I share many of the goals, in fact I share all of the goals that you have talked about. We may differ on how we go about keeping those goals, or the balance between the uses of different things, but philosophically, these national forests are owned by the American people and we ought to be managing those in the way that best meets their needs.

I DON'T SHARE YOUR NEGATIVE VIEW

And, I guess, contrary to your opening statement, I don't share your negative view about: how bad things are out there on the national forests. Sure, we have some problems. We need to work on those problems together, but we have a lot of good things going on in the Forest Service, including here in Georgia.

FOREST SERVICE HAS A GOOD WORKING RELATIONSHIP WITH THE PEOPLE OF GEORGIA

I think the Forest Service has a good working relationship with the people of Georgia and by working together, we have completed the Chattahoochee-Oconee National Forest Plan and that plan, unlike many others, are free of appeals. We have resolved those appeals. There were differences of opinions about how we managed the Chattahoochee-Oconee National Forests, but we have been able to work those out with the various interest groups here in Georgia and, as I say, we have resolved all of the appeals on that forest's plan.

And I am especially proud of how the people of Georgia are pitching in and helping us out and implementing those forest plans.

Organizations like the Georgia Department of Natural Resources, the Georgia Conservancy, Trout Unlimited, the National Wild Turkey Federation, the Appalachian Trail Conference, and many others are helping us implement that forest plan.

IMPACTS OF URBAN POPULATION ON THESE FORESTS

The Chattahoochee-Oconee National Forest is adjacent to both the Atlanta and the Chattanooga metropolitan areas. I think there is over 7 million people living within 2 hours drive of these forests, and so, in line with your request, Mr. Chairman, I will spend my few minutes talking about the impacts of urban population on these forests, both the private forests and in the national forests, and I would like to just do that by highlighting two trends that our underway.

TWO TRENDS

Number one, more and more people are choosing to live in the forest environment, either for their first or second home, and forest managers are having more neighbors than ever before to deal with, and the second trend is that more people from the urban areas are coming to the forests for outdoor recreation.

FIRST TREND—CHOOSING TO LIVE IN THE FOREST ENVIRONMENT

I would like to talk about the first trend, as more people want to live in the forest environment to escape from the traffic congestion, the pollution and other problems in the metropolitan areas, and some of the private forest lands becomes more valuable for development for the first or second homes than for forestry purposes, and private forest land is being subdivided and sold in smaller parcels for home sites. As this is done, we are losing a lot of the productive private forest land base for the purposes of public outdoor recreation, wildlife habitat, and timber production. Many of these new owners post their land to eliminate any public recreation use, such as hunting and fishing, and timber production is frequently not one of the management objectives of these new owners.

Furthermore, many of the new residents in the rural areas use the national forests as their back doors and backyard and object to some of the long established traditional uses of the forest such as harvesting of timber on a sustained growth basis. Yet these traditional uses of the forests on which many of our other rural residents depend upon for their livelihood don't go away, because we have these new neighbors and new demands placed on us. And these conflicts have to be worked out cooperatively with everyone involved and I believe, Mr. Chairman, in the case of the Chattahoochee-Oconee National Forests, we have done that very successfully.

Also, as the population builds up in the rural forest environment, it creates many of those same needs for services that people left behind in the cities. Road access, fire protection, water, electricity, sewage disposal and solid waste disposal, and these secondary uses are also generating considerable impacts on forest land.

For example, we are planning fire protection which is especially difficult when houses are intermingled with forests. It increases the risks for the number of fires and when fires do occur, life and property are threatened in addition to the forests and we frequently get caught up in the situation of having to divert firefighting forces away from the forest and concentrate on people and houses as our first priority.

And just for example, we had a series of major fires in California in 1987 and we literally spent the first 2 or 3 days in those fires evacuating people and trying to protect life and property while the fires continued to burn in the forests with very little effort devoted to it.

And I think it is obvious that as more people move into the forests, we have to strengthen the rural fire districts to deal with this problem and the Forest Service and State foresters are working cooperatively together with the rural fire districts to do that.

SECOND TREND—MORE URBAN PEOPLE ARE COMING TO THE FORESTS FOR RECREATION BUT THEIR USE PATTERN AND EXPECTATIONS ARE CHANGING

The second trend I will just get to very briefly is that more urban people are coming to the forests for recreation but their use pattern and expectations are changing.

Urban people are taking more frequent but shorter trips to the forests, many are on a tight time schedule, and they are expecting more facilities, more conveniences and services than the Forest Service has traditionally provided in our recreation program, but the good part of this is that it creates an excellent opportunity to diversify rural economies like promoting tourism and outdoor recreation industry through partnerships with the local government and the private sector. This is one of our priorities in our recreation program and we are making good progress in establishing partnership arrangements to get people to help us get the recreation job done.

CONCLUSION

In conclusion, Mr. Chairman, there are many interests on the national forests and the growing needs of urban people are certainly one of the major factors changing the demands placed on the forests.

Unfortunately, as new needs and expectations come along, old needs and expectations don't go away, so we need to keep blending the two and making adjustments as we go along and do that with the full involvement of the people. Working things out in this manner go much better in some forests than others, but in the case of the Chattahoochee-Oconee National Forests, I am really pleased with how conflicting demands have been resolved in the forest planning, and I hope that you and I and other people in Washington, DC can help support the people of Georgia in implementing that Chattahoochee-Oconee Forest plan which I believe is a very good one.

Thank you.

[The prepared statement of Mr. Robertson follows:]

PREPARED STATEMENT OF F. DALE ROBERTSON, CHIEF, FOREST SERVICE, U.S. DEPARTMENT OF AGRICULTURE, WASHINGTON, DC

Mr. Chairman and members of the subcommittee:

Thank you for this opportunity to discuss the "urban-wild land interface" as it relates to the National Forest System. With me today is Jack Alcock, Regional Forester for the Southern Region, and Ken Henderson, Forest Supervisor of the Chattahoochee-Oconee National Forests.

Historically, the main wild land fire risk has been to large acreages of undeveloped forest land. But now, all across the Nation, we are seeing a major shift in population from urban to rural. Many expensive homes are being built in forested areas that were considered too remote only a few years ago. Second homes, retirement homes, and suburban developments are now becoming intermingled with national forest and other forest land in many areas. Today, when the States, local organizations, and the Forest Service fight fires, homes and even lives are at risk in addition to the natural resources. The term "urban-wild land interface" was coined in the early 1980's to describe this emerging fire problem.

Unfortunately, many new residents are not aware of the hazards associated with living in forested areas. Frequently, new homes in these areas are at high risk from fire due to deficiencies in building codes or local zoning requirements that permit unsafe choices in building or landscaping materials, and unsafe choices in road design or construction methods.

This increase in the number of residences in, and adjacent to, our national forests and other forested lands also places greatly increased demands on the capabilities of local firefighting agencies. Often, local agencies are volunteer fire departments whose members are trained and equipped for specific firefighting duties—either structural or wild land fires, but not both.

Fire is only one aspect of the urban-wild land interface. Our Federal and State highway network makes the national forests an easy drive from most metropolitan areas. This is especially true for the Chattahoochee-Oconee National Forests since it is crossed or bounded by four interstate highways and Georgia 400 (essentially an interstate). This improved access spurs development in what were once rural areas. Since 1970, the value of some lands adjacent to the national forests has increased by 900 percent.

Just as more people are making their homes on the intermingled private lands in the national forests, the recreation areas, roads, and trails in the national forests are also experiencing a big increase in visitors. The Chattahoochee-Oconee is one of the most heavily visited forests in the Nation, with a 50-percent increase in use since 1975. In some cases, our campgrounds, picnic areas, and other recreation facilities have more use than they were designed to handle. The result is visitor facility overcrowding, and excessive wear to facilities and the associated environment.

We have recently rebuilt and expanded several campgrounds and trails. A new visitor center has been constructed at Anna Ruby Falls and a new interpretive association building added at Brasstown Bald. Additional emphasis is needed on maintenance of existing facilities, especially road maintenance. We need better education of wilderness and back-country users in low-impact camping and litter control. In the future, we may have to limit use in some areas to give overused areas a chance to recover.

The Chattahoochee-Oconee has one of the strongest networks of partnerships with external organizations and government agencies in the Nation. It has an extremely close working relationship with the Georgia Department of Natural Resources, and partnerships with Trout Unlimited, the National Wild Turkey Federation, the Appalachian Trail Conference, and many others. These organizations participate in Forest Service decisionmaking, and provide assistance on the ground to improve wildlife habitat and maintain trails and other facilities.

There are major social impacts associated with the urban-wild land interface. Our law enforcement officers deal with many of the same crimes as their metropolitan counterparts. These offenses range from rowdy behavior and drug abuse to serious crimes against property and people.

Other social impacts are caused by the increasing presence of people in the national forests—both residents and visitors. Usually, these people are from nearby urban areas, but there are also significant subregional patterns of migration. Many new residents of the Georgia and North Carolina mountains, for example, moved there from Florida. There is a similar situation in the Ozark and Ouachita Mountains of Arkansas.

We believe that solutions for national forests like the Chattahoochee must be developed locally within the framework of the forest land and resource management planning process. The planning process worked well for the Chattahoochee. Yes, there were conflicts and even some appeals. But with intense public participation and mutual respect on all sides, those conflicts and appeals were successfully resolved.

On the Chattahoochee-Oconee National Forests, the forest planning process allowed us to strike a reasonable balance. National forest timber harvests provide employment and raw material for local industries. At the same time, the forest also protects noncommodity values that stimulate tourism and provide economic diversification. Wildlife is abundant—and increasing—on the forest. Recreation use has grown steadily for decades and now exceeds 10 million visits per year, rivaling the usage of the Great Smoky Mountains National Park. The Cherokee National Forest in Tennessee, the Pisgah/Nantahala National Forests in North Carolina, and other national forests that are near large metropolitan areas host the largest share of our visitors. The Forest Service is the largest provider of outdoor recreation in the Nation.

Our mission is "Caring for the Land and Serving People." Our challenge is to work with the public—and within the laws provided by Congress—to balance competing needs and interests. Our forest planning process provides a good framework to make these choices: choices among degrees of preservation and use; choices among environmental, social, and economic values; and choices between what is ideal and what is attainable. The choices we make in the "urban-wild land interface" are becoming increasingly important, because they so directly affect the daily lives of those who live, work, and play there.

We will be happy to respond to your questions or provide additional information.

Senator **Fowler**. Thank you very much.

Chief, you should see my statement before I toned it down. [Laughter.]

It wasn't meant to be negative but only accurate, and I do, as I have told you before many times, appreciate your public service and the extraordinary difficulty of you and all the professionals in the Forest Service for balancing these competing interests.

Let me ask you a little bit at first based on your testimony. Let's just take the Chattahoochee-Oconee as you have mentioned, the plan is complete. You have just, accurately, of course, stated what is the remarkable population trends, more and more people are moving to the southern region. The difficulties of all of the inholdings and the closeness of the southern region going all the way up to the Smokies Park, of the incredible usage on all sides, second homes, retirees, and yet the plan, the Chattahoochee plan alone anticipates a trickling of harvesting in the next 10 years.

It was 20, it was approximately 20 million board feet from 1977 to 1986. From 1987 to 1996, the plan takes it up to 60 or 65 million board feet.

Now, I think you will agree that 90 percent of the private land sales—private land sales. I don't think there is any controversy about this figure, private land sales supply 90 percent of the timber for the Southern Appalachian market. That came out of your—in fact, that figure came out of your latest Forest Service Report.

Now, if that's the case, we have 90 percent of the market being supplied by the private lands. We have a tremendous pressure by people moving in urban dwellings, recreational needs, why is the Service wanting to triple the harvest for the next 10 years?

Mr. **Robertson**. Mr. Chairman, I don't know the details of that on the Chattahoochee-Oconee plan and I would like to ask our Forest Supervisor, Ken Henderson, to come up and respond to the rationale for that——

Senator **Fowler**. Mr. Henderson, you all can come up to the table and jump in here any time you would like. It is only me and so I would much rather have a conversation rather than——

Mr. **Alcock**. So I might just ask the Forest Supervisor here why he wants to triple the harvest in the Chattahoochee-Oconee? [Laughter.]

Mr. **Henderson**. It has grown a little bit. My original, the original thing that I heard was that it was double. In fact, it doesn't.

Senator **Fowler**. I am just looking at your old chart here, USDA Forest Service land and resource management plan.

Mr. **Henderson**. One of the reasons that this comes about is that sometimes those charts, and I am not familiar with the exact one, we are not looking at the same one, but when you start talking about allowed-to-sell plan, it is not necessarily the same thing as what is harvested on the ground.

In fact, before the plan, the amount of land where timber was cut averaged about 4,645 acres per year. During 1987, after the plan was implemented, 3,921 acres were actually harvested on the Chattahoochee. In 1988, this figure was 4,072 acres, and so it has stabilized at about that point which is actually a little bit less than what it was before the plan.

Senator **Fowler**. Well, I appreciate those figures, but I do not think honestly that is responsive to my question. The plans, all of the plans, the ones that have been adopted in the southern region, upon my review, all of the plans have goals of increased timber extraction.

Now, if we are going to sort of step back and look at our resources, and look at all of the other mandates for the diversity of use and the biological diversity, recreation, wildlife habitat, all that are mandated in the law, in this area which is used by tourist, for lack of a better word, hunters and fishermen, more than any other of the regions, more people, how do the plans, why do we have a plan that anticipates doubling or tripling, whose ever figures you want to use, though I think these are your own figures, how can we possibly justify that when we don't have the economic benefit argument that we do have in the Federal lands to the West? We have 90 percent of the totals here, in September, for this market is supplied by private growth interests. Surely we can, I know there is some answers that are going to have to contend with, but surely with the Chief and everybody here, we can do better than that.

For instance, and again, I want you to—I know it is hard, it looks like I have all of the advantage, because I am higher than you. [Laughter.]

More than half of the acreage—I am trying to just say things where I don't think there is any dispute over the facts. It is bad enough when we fight over philosophy but I am trying to keep a level playing field on the facts.

According to the Forest Service, more than half the acreage of the Southern Appalachian parks, these six parks, are considered to be steep terrain. Your definition of steep slopes, those with inclines of more than 35 to 40 percent.

And yet not only is much of these, these slopes, scheduled for intensive timber management, for lack of a better phrase, according to my information in reading my report, not a single acre in all of the six national forests in the southern region has been determined to be physically unsuitable for timber production.

Now, how can that possibly be explained?

Mr. **Alcock**. Good morning, Senator Fowler.

Senator **Fowler**. Good morning.

Mr. **Alcock**. I want to clean up this business about the harvest on the Chattahoochee before it goes to your meeting.

Senator **Fowler**. Please.

Mr. **Alcock**. The harvest of timber on the Chattahoochee National Forest has not changed since 1976. It is not projected to change through 1995.

Now, let me keep going here for just a second.

Senator **Fowler**. Please.

Mr. **Alcock**. When Pat Thomas was the Forest Supervisor on the Chattahoochee, he and I had a long debate about what kind of figures to show for the future for the Chattahoochee.

Pat felt pretty strongly it was important to show that the forest had increased capability of producing timber. I went along with letting him show a fairly high increase. That would be only if markets developed to absorb the increase. Those markets have not developed, and so the increase has not taken place. So there has been no increase and there will not be an increase unless the market develops for the use of the product.

So that is part of the reason you see numbers that are quite high, but in reality, the situation has been very stable in terms of harvest.

Now, as to the suitability issue. Our country does have excellent productive sites. There is some steep country involved. We all know that.

About one-third of the national forest plan for the southern region are classed as unsuitable. That is, they are unavailable for timber harvest.

Now, it is true——

Senator **Fowler**. That are already in the wilderness, or some of it is.

Mr. **Alcock**. Yes, or——

Senator **Fowler**. I am not talking about that. You know I am not talking about that. I am talking about the lands that are not already totally effective.

Mr. **Alcock**. Well, all——

Senator **Fowler**. How is it that a mountain slope cannot be determined physically unsuitable when that is one of the requirements under law for your judgment of where harvest can take place? Physically, I mean, I am not talking about economic unsuitability.

Mr. **Alcock**. Correct. I understand. All of this country supports tree growth. All of it can be managed if it is done carefully and done properly. It has all been logged in the past and that is one of our problems, it was not done very scientifically and there was a great deal of environmental damage.

With the systems that we have now days, it is physically possible to log all of this land, and to grow timber on it. You know, there will be places obviously like the balds and some low site [index] country that will not be attempted as manageable timber, there is no attempt to do that.

Senator **Fowler**. Well, of course, just to pursue that, that line of thinking, it is all technically possible if you use the most sophisticated and difficult, and I am getting into argument now, arguably uneconomic methods of doing things, with all the roads up there and all the things that cause us to lose a tremendous amount of money to get that kind of timber out.

I guess what I want to say to the proper people here is that, and I want any—I would love to have any reaction, is as the Chief has just acknowledged, that regardless of what happened in the past, we have all got enough blame to pass around, especially in the southern region, we have an incredible demand for recreation, visitor protection, wildlife habitat, hunting and fishing, and back country hiking that is not the only road, as the Chief said. At the same time, when we do not have the demand or need for the timber, and this plan was put together before my time and I am not blaming anybody, but all I know is, I would like to think that that extraction where it is not needed and where it is unquestioned we lose money for the taxpayer, will not be done but that is not what is incorporated and anticipated in the Chattahoochee-Oconee plan over the next 10 years, and it triples again going out to, you had to go out to the year 2030, it is anticipated it will be up to 85 million board feet between 2021 and 2030.

And I would love to see us clear that up which can be done from the Chief on down. I would love to see some of these areas that are now under study for inclusion in wilderness, not only recommended, but I know you are protecting them now. Maybe we need to put a firm moratorium on this simply because we don't need any.

I am very sympathetic to those westerners on those Federal lands who say we are going to close all of these sawmills. We have to figure out, if we are going to protect the natural resource, we have to figure out how to retrain some people and it is going to take some time, but I don't believe, and you fellows correct me if I am wrong, there are any economic arguments for continuing an increase in timber extraction on areas in these six regional forests which are, first of all, the most difficult to extract from because of the mountains and the slopes. Second, we are losing money hand over fist, which the Forest Service acknowledges; and, third, there is no demand because 90 percent is supplied by the private foresters in this region.

It seems to me we have the grand opportunity to make an extraordinary showcase, anticipating, getting ahead of the turf for once, because we know that the demand is already there and, as the Chief said, it is going to increase exponentially over the next, any period of time you pick; 2 years, 4 years, 6 years, 8 years.

Mr. ROBERTSON. Mr. Chairman, I would like to, again, just respond in principal from a national prospective.

I am not in favor of doubling and tripling a timber sales program on the Chattahoochee-Oconee under the situation of losing money.

In fact, my policy nationally is that we will not increase timber harvest levels on national forests that are losing money, and before we would ever get to these kinds of figures that you are talking about, which Regional Forester Alcock talked about in terms of potential out there, we will recycle these forest plans many times.

In fact, even by law, we are to redo, revise these plans every 10 to 15 years, and I will promise you, we will not be going to second, twice, and triple timber harvest levels on forests like the Chattahoochee-Oconee without a major revision of these plans, looking at the demands on that forest at that time, and especially the situation where we are losing money.

Senator FOWLER. Well, I am delighted to hear that, Chief, and I hope—I know you will follow through, but I hope you will follow through in a manner that it becomes a part of the plan just in case that we are so unfortunate as to lose you by making such a controversial statement. [Laughter.]

Before I, I am sure—I am not going to get into how do we determine what is economic and what is not economic. The Chief and I have had some talks and I am sure we might hear that from some of our other witnesses, but let me ask you about one thing we haven't talked about. I have been involved, as you know, trying to work with you and these difficult matters of criminal activity in the forest, specifically the marijuana growers. Has the changes in some of our criminal laws that the Congress passed, have your personnel had any increased success in preventing the planting as well as the harvesting of marijuana in our national forests?

Mr. ROBERTSON. Yes, we have, Mr. Chairman. There is still a lot of progress that needs to be made, but we have turned the corner. At least we have the curve flattened out now. It was sharply increasing and with the new bill that passed Congress a couple of years ago, we have beefed up our enforcement efforts on the national forests. We have had more cooperation from DEA and State law enforcement officers and, for example, last year, we ended up with over 500 arrests of marijuana growers on the national forests, so we have turned the corner, we have the curve flattened out. In fact, going down a little bit, but we have a long ways to go, and I really appreciate the help of you and the Congress in helping us turn the corner on that.

Senator FOWLER. Well, that is good news. I know we have a long way to go, but you need the tools to increase not only your surveillance but making arrests and taking the appropriate measures.

Mr. ROBERTSON. And I might add, marijuana grows extremely well where trees grow and so the southern region is one of our more productive areas in terms of growing marijuana.

Senator FOWLER. Now don't use that as an argument for cutting down more trees. [Laughter.]

Mr. ROBERTSON. But it is a serious problem here in the South and Regional Forester Alcock could further expand on that, if he would care to.

Senator FOWLER. If you care to, Mr. Alcock?

Mr. ALCOCK. All right, only to say, Senator Fowler, I understood that maybe tomorrow, it had originally been planned to address the special problem we have on the Daniel Boone National Forest in Kentucky. Senator McConnell is very much concerned about that and that is our most difficult spot in the region right now.

As it turns out, I understand we are not going to talk about that tomorrow, but we are trying to reschedule——

Senator FOWLER. Right.

Mr. ALCOCK [continuing]. A date for that, so at that time, we will have a chance to present much more detailed information on this and it is a very serious problem in the region.

Senator FOWLER. One more time, just to make sure that I understand, and that I am not in error, from any of you gentlemen, especially those of you on the line, by your definition, by the Forest Service definition, are there any communities in the whole Southern Appalachian region that are economically dependent upon timber sales on the public lands in the national forests?

Mr. ALCOCK. I think we would have to answer that there are no total communities 100 percent dependent on national forests such as you would find in the West.

There certainly are individual mills that utilize products of the national forests that are heavily dependent on those lands and I suppose whether it is a community or a mill, it really doesn't matter too much, as long as there are jobs involved, and the folks that work in these mills have the same problems as everybody else in trying to find decent work and wages, where they can afford to send their kids to school and pay their doctor bills and all the rest of it, and so even though it may not be full communities, there are mills and facilities who do rely quite heavily on national forest lands.

Senator FOWLER. But not exclusively.

Mr. ALCOCK. No, sir.

Senator FOWLER. There are alternative timbers from private lands and private sources.

Mr. ALCOCK. I think that is true.

Senator FOWLER. That also go to those mills.

Mr. ALCOCK. The way it works as a rule nowadays is from one area to another, it is, even in the heavy public land areas, it is hard to find a mill that is 100 percent dependent. There are a few, but for the most part, those products move across broad areas and they go to the facilities they can best utilize, and whether the products come from public land or private land.

Senator FOWLER. Are we doing any road erasures in the southern region?

Mr. ALCOCK. Yes, sir.

Senator FOWLER. To what extent and where?

Mr. ALCOCK. All temporary roads that are constructed in the region are closed following their use. A temporary road is one that was put in for a single purpose. Usually that is the removal of timber. It is a very low standard road. Most folks wouldn't even recognize it as a road. There is no gravel on it or anything like that. Those roads are all closed.

The bulk of the rest of the roads are so-called local roads and to understand, I guess we would need to try to paint a picture of what a local road looks like. It is single lane. It is not a high standard road. Sometimes it has gravel on it. Other times, it has not. It never is a hard surface, a hard-top road. Following their use, 75 percent of those roads are closed.

Senator FOWLER. Mr. Alcock, I was looking at this quote, and I was actually reading it at 3 o'clock this morning, trying to get ready for you.

This is from the Nantahala/Pisgah, your plan, the Forest Service plan for the Nantahala/Pisgah which, of course, is actually part of the timber market, and I quote from your plan:

"If timber products from the national forests were completely withdrawn from the market, local industries could meet demand levels from private sources of supply."

I just wanted to put that in the record.

Mr. ROBERTSON. Mr. Chairman, could I just comment on the timber demand that you talked about?

Senator FOWLER. Please.

Mr. ROBERTSON. And I think you asked the timber representatives later on for further comment on that, but if you look nationally, and I have to look nationally, there is a big demand for timber. In fact, this country is importing about one-third of our forest products needs, mainly from Canada and, in fact, if you look at this southern region and pine sawtimber, in many areas, we are—I am talking about all forest lands now—harvesting more sawtimber than we are growing in the South, and it is the number one manufacturing industry here in the South.

Senator FOWLER. It is the number one—listen, I have had a lot of folks who are after me—it is the number one industry in Georgia. Number one. I don't have any problem with harvesting timber. I want to harvest timber number one in the domestic market, but what I want, my responsibility it seems to me, all of our responsibility, is to make sure that if we harvest, we sell it for what it costs to build those roads and for difficult extraction and not to subsidize its extraction and, you know, that is what we have been doing. There is no doubt about that, right?

No doubt about it. Do you want me to read your own report? $5.5 million this last year in the six forests. Now that was outrageous. We just make folks pay what it costs as to public land. If it is private land, they can do whatever they want to. They do extremely well in Georgia. But what our charge is, mine and yours, we are on the same team, or are supposed to be, is to make sure that we are not, first of all, undercutting the private market by using taxpayers money to subsidize this extraction, and, number two, I mean we can ask the private representatives. One of the only assets I have ever seen when the market goes down, we cut more rather than holding the asset until the market goes up.

But, I don't have any problem with demand. Now, we have a whole big definition for demand, as to whether or not we ought to be sending all of our hardwoods to Japan for building houses over there. If the private industry wants to do that, that's their business. They do it very well in their rural resources, they have a commendable record. That is not the business of the public's forests, it doesn't seem to me, and, if it is, the costs ought to be—I mean, at least if we are going to do it, let's make a profit for the taxpayers.

Mr. ROBERTSON. And we make a profit for the taxpayers overall. But as you point out——

Senator FOWLER. But it is not on the timber sales.

Mr. ROBERTSON. Nationally, we do.

Senator FOWLER. Nationally, I understand.

Mr. ROBERTSON. But these six national forests, as Regional Forester Alcock points out, the southern region is a big moneymaker, but in those six Appalachian Mountain forests that you are talking about, you make some very valid points, and I thought you were saying there wasn't a demand for this timber when nationally, there is a need for the timber and until we learn to live with less forest products in this country, we are going to continue importing about one-third of our needs into this country and so I do think we need to think about both private and public land. The timber supply and the bulk of it, as you point out, comes from the private land here, and so—but that was the only point I wanted to respond to.

Mr. ALCOCK. Also, Senator Fowler, this situation is changing. It is hard to keep accurate track of the trends in demand and supply.

As we talked about earlier, ownership of this land is constantly changing and the private owners have their own objectives and many times that does not include selling timber for the market.

I think this is outdated and I can't cite you the specifics because we do not have an adequate survey of this information, but I feel it is happening that many landowners in north Georgia and western North Carolina are not, even though there is timber on their land, they really have no intent of making it available to the market, so when a person goes out to buy timber for his mill or whatever, what I am hearing is that they are having a more and more difficult time finding timber from private land, and that is one of the reasons that they are tending to turn more and more toward the public land.

Senator FOWLER. Well, I hope we will find that out from some of these folks this morning and the reasons why.

Mr. Henderson.

Mr. HENDERSON. Senator, I might point out that we do go through quite an extensive process before any management activities takes place in an area, and here in Georgia, we have a group of the appellants, that are known as Forest Watch. We involve them in the planning process of each project as it goes forward all the way through the process. We have an annual meeting with them.

Along with that, on timber sale activities, we are currently conducting economic reviews of those sales to see if they are going to turn out to be below cost, if there are changes, they are made, if there are areas that we shouldn't be in.

Along with that, our forest plan gives very strict guidelines as to how we protect riparian areas, what we do on steep slopes, what we do to our endangered species and so, I would just like to point that out to say that we are in a positive mode, taking steps to look at this issue, and also be concerned about the recreation opportunities within the areas themselves.

Senator FOWLER. Well, I appreciate that, Mr. Henderson, and I know you have got a whale of a job as the Supervisor of the Chattahoochee Forest and I hope when we are back a year from now, you can show me that those goals have been met, and all of a sudden we see those areas elevated with at least equal consideration with extraction. I think the record will show, certainly nationally, that the timber, everything else seems to be second fiddle to the timber on public lands, and I know that the Chief, as he has already said, is trying to look at this with some fresh eyes based on what the need is for the foresters and it does continue to evolve and it does continue to change, and in our region, we have a whale of a demand that has nothing to do with timber, so that we have a chance, it seems to me, to be the model for the Service.

Gentlemen, thank you very, very much, Chief, especially for coming all the way from Washington. I would like to give you the last word.

Mr. ROBERTSON. I appreciate the last statement, Senator Fowler, and I think with the Chattahoochee-Oconee really being kind of a model, I would like to, maybe you and I might spend a day sometime within the next year with Mr. Henderson and see if he is doing what he says he is doing.

Senator FOWLER. I would be delighted to do that.

Mr. **Robertson**. Let's do that.

Senator **Fowler**. We sure will do that. Thank you so much.

Joseph Cipcic, president of the Adventure Catalog.

Well, Mr. Cipcic, if you will—we can put your entire statement into the record—and if you would help us by summarizing as best as possible, I would appreciate it.

STATEMENT OF JOSEPH (CHIP) CIPCIC, PRESIDENT, THE ADVENTURE CATALOG, ATLANTA, GA

Mr. **Cipcic**. Mr. Chairman, thank you for the invitation to present testimony to the Senate Subcommittee on Conservation and Forestry on priorities for national forest use.

We see it from a different perspective in that——

Senator **Fowler**. Mr. Cipcic, hold on just a second. Mr. Robertson, if you have to go, you know I want you here for the whole time if you can, but with all of your people here, if you have to go back, please feel free to be excused.

Mr. **Robertson**. OK. Thank you, sir.

Mr. **Cipcic**. We see forest use and priorities in a different light in that forest products for us are not just timber but also recreation and education, we see in a very direct way with our involvement with the Adventure Catalog and the Wolfcreek Wilderness School.

THE WILDERNESS EXPERIENCE

As the stress and problems of the urban environment cause a need for balance with simpler pleasures, the mountains of north Georgia and their proximity to the Atlanta area are a bonanza for natural recreation and learning. The value of vast stretches of woods for hiking, riding, camping, whitewater, and scenic highways all depends upon the wilderness remaining wild and visually beautiful.

THE ADVENTURE CATALOG

The Adventure Catalog serves as an agency for a number of wilderness outfitters. These wilderness activities include whitewater rafting, mountain horseback riding and camping, hiking, backpacking, camping experiences, waterfall collection, nature and wildlife observation, and photography.

WOLFCREEK WILDERNESS SCHOOL

Wolfcreek Wilderness School provides education using actual experiences in the wilderness for both children and adults. The school is bordered on two sides by national forest near Blood Mountain in the north Georgia mountains, and most of the actual courses are taught throughout the national forests in north Georgia and in North and South Carolina. Half of the school's programs are multiday corporate teambuilding exercises for companies seeking solutions to management and communication problems within their organizations.

The other half of the school's programs deal with leadership development in children operating in taking kids into the national forests for hiking, caving, backpacking, whitewater rafting, and canoeing.

DOLLARS AND DAMAGES

Wilderness recreation and education in our national forests is big business. The Adventure Catalog's horseback riding outfitter, Sunburst Stables, has done 2,000 horseback rides this year and produced $75,000 in revenue, all of which has been spent in the local community. The Adventure Catalog's whitewater outfitter, Wildwater Ltd., took 29,000 people rafting this year, and employs 125 people with annual revenues in excess of $1.3 million.

Two other outfitters run the Chattooga River as well and 10 other outfitters run the Nantahala River, so they are not isolated. One of these outfitters, the Nantahala Outdoor Center, is even bigger than Wildwater, Ltd.

Wolfcreek Wilderness School's 1988 revenues were $300,000. That is only one school. Some of the other organizations offering executive training in the national forests are Executive Adventures, Project Adventure, and Executive Expeditions and, also, Wilderness Southeast and Outward Bound. The intangible economic impact of these programs is virtually incalculable. What is the value of a more productive American corporation, or an inner city child who becomes a leader in a crack ridden neighborhood? These are the products of wilderness educational experiences.

Nowhere can the damage to the wilderness experience be more clearly seen than in the case of Sunburst Stables, our horseback outfitter, an organization dedicated to mountain horseback riding in the Chattahoochee National Forest. Clearcut forests and logging roads have caused massive erosion; destroyed scenic vistas; are causing their only campsite to be destroyed from silting caused by clearcutting and a logging road above it; a pristine mountain stream is being destroyed by the same silting; and a general degradation of the wilderness experience is taking place because of extensive logging throughout the national forest in which they provide horseback riding experiences.

If you will, you have some photographs there, Mr. Chairman. The first six, labeled 1 through 6, show the degradation of visual experience caused by this logging, clearcuts and the burning of it. This is all on about a 3 square mile tract, Forest Service Compartment 245.

The next four pictures are far more serious in consequence. The first, labeled A, is the actual campsite used by the stables. At the northern edge of that at the edge of the picture, you can see a stand of rhododendrum and a small branch called Nester Branch, or a stream that goes through there.

The next picture, labeled B, shows the Forest Service road that runs parallel with Nester Branch up above the campsite. Erosion deposits from washouts, it has been patched, the hole in it has been patched three times. The patching material, the dirt that has been put into it, flows down into Nester Branch, it has *killed the stream* (which is one of the headwaters to the Chattahoochee incidentally).

The next picture, labeled C, shows on the other side of the campsite a Forest Service road has not been maintained, the erosion has been washing down into the campsite, and the last picture shows about 4 or 5 inches of silt that is building up in this campsite and in Nester Branch. This is at odds with what we are trying to provide.

And I would like to say that Sunburst Stables is an ecologically oriented outfitter who recognizes the value of a true wilderness experience. They practice minimum impact camping and equestrian techniques and are vitally concerned with the erosion caused by their own horses. Sunburst actively makes extensive antierosion channels across the horse trails that they have created in the national forest. But four wheel drive vehicles and motorcycles riding illegally through the forest flatten these antierosion methods faster than they can put them up. Sunburst Stables has also requested a larger area to ride in so they can rotate trails for less impact on the forest. This request was refused by the Forest Service because of conflict with logging operations. We hope you can change that.

SOLUTIONS AND SUGGESTIONS

What can we do about this? Well, first, better planning by the Forest Service to incorporate recreational and educational uses is the first step. Indiscriminate clearcutting and further building of logging roads is at odds with what wilderness outfitters are trying to provide for the public, true wilderness experiences.

Second, the public and organizations who use the forests must make responsible use of them, and that starts with awareness of the "no trace ethic," which we certainly condone and promote.

Realistically, some problems can only be solved by spending. The Forest Service needs more money to be allocated for development of recreational trails and other facilities, information services, and especially law enforcement against abuses in the national forests.

[The prepared statement [1] of Mr. Cipcic follows:]

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[1] The photographs referred to in the testimony and prepared statement will not be a part of the printed hearing.

STATEMENT OF JOSEPH (CHIP) CIPCIC, PRESIDENT OF THE ADVENTURE CATALOG, AND BOARD MEMBER OF WOLFCREEK WILDERNESS SCHOOL ON THE NEED FOR HIGHER PRIORITY FOR RECREATIONAL AND EDUCATIONAL USE OF THE NATIONAL FORESTS BEFORE THE SENATE AGRICULTURE COMMITTEE 'S SUBCOMMITTEE ON CONSERVATION AND FORESTRY, OCTOBER 30,1989 ATLANTA, GEORGIA

Mr. Chairman, thank you for the invitation to present testimony to the Senate Subcommittee on Conservation and Forestry on priorities for National Forest use. My comments this morning are based upon my company's experience with the degradation of the recreational value of the forests by excessive logging road construction and logging, and my own personal and professional passion for sharing the wilderness as a recreational and educational resource for Americans in general. I would like to first give you an idea of the diversity of wilderness recreation opportunities available in the national forests, then add to this the growing number of educational opportunities being employed by wilderness training organizations. Secondly, I would like to substantiate these examples with the dollars being spent by Americans and American companies on wilderness recreation and education, and show how the damages being done to the forests are at odds with these uses. Finally, I would like to suggest some solutions and practical suggestions for the U.S. Forest Service to accommodate and solve the crises and problems we currently face with the "urban interface" with the national forests.

The Wilderness Experience

More and more Americans are seeking high quality experiences in their private and professional lives. It is this experiential quest that brings people to our national forests. Our involvement with the National Forests is as an urban interface in two forms: The Adventure Catalog, and Wolfcreek Wilderness School. In both wilderness recreational experiences and wilderness educational programming, I have never seen a better use for a national resource.

As the stress and problems of the urban environment cause a need for balance with simpler pleasures, the mountains of North Georgia and their proximity to the Atlanta area are a bonanza for natural recreation and learning. The value of vast stretches of woods for hiking, riding, camping, whitewater, and scenic highways all depends upon the wilderness remaining wild and visually beautiful.

I have a perspective to see the wilderness in our national forests play a significant role in people's lives, as well as in local economies. Both of our organizations, and the outfitters we represent, need true wilderness for the continued quality of our programs.

The Adventure Catalog serves as an agency for a number of wilderness outfitters. We are in fact, a conduit for information and arrangements for a diverse and growing list of activities in the national forests. We represent a number of outfitters and also distribute information for wilderness activity. Our outfitters are leaders in their fields who all share a passion for the activities that they lead. Each and every outfitter represented by The Adventure Catalog practices and teaches minimum impact wilderness technique. Their respect and care for the national forests in which they operate is evident in all areas of their operations.

These wilderness activities include whitewater rafting, mountain horseback riding and camping, hiking, backpacking, camping experiences, waterfall collection, nature and wildlife observation, and photography. All of our wilderness outfitters' activities take place in the national forests. Our outfitters and their customers are seeking an experience in these national forests which, while recreational in nature, includes the search for scenic and natural elements in a pristine environment. This includes wild streams and rivers, mixed hardwood forests, narrow trails through dense woods, wildflowers, wildlife, and mountaintop vistas of rolling forests below. Since our largely urban clientele seeks escape from the stresses of city life with this wilderness recreation, without the wilderness context of these programs, the experience suffers, and is suffering greatly.

Wolfcreek Wilderness School provides education using actual experiences in the wilderness for both children and adults. The School is bordered on two sides by national forest near Blood Mountain in the north Georgia mountains, and not only does this mountain environment play a significant role in the educational process, but most of the actual courses are taught throughout the national forests in North Georgia and in North and South Carolina. Half of the school's programs are multi-day corporate teambuilding exercises for companies seeking solutions to management and communication problems within their organizations. These programs take place in the context of the wilderness, and open up solutions for them they would otherwise never find in their city environments. Ropes courses, rockclimbing, whitewater rafting and canoeing, hiking, and group discussions and exercises out in the forest are all part of the programs.

The other half of the school's programs deal with leadership development in children. Part of the programs are offered for school groups, taking kids into the national forests for hiking, caving, backpacking, whitewater rafting, and canoeing. This curriculum is especially impactful in a program we are currently developing to take inner city youths out of their urban environment, teach them leadership skills in the wilderness of the national forests, and then return them as examples and leaders in their city lives. Yet another important program for Wolfcreek Wilderness School is one in which we take juvenile delinquents out on 28 day multi-faceted wilderness programs in the national forests, to teach leadership and independence skills before returning them to their urban environments. All of Wolfcreek Wilderness School's program's take place in the context of wilderness, and logging roads, clearcuts, and the like destroy a part of the elements and effectiveness of the programs.

Dollars and Damages

Wilderness recreation and education in our national forests is big business. The Adventure Catalog represents each of our outfitters' adventure categories exclusively (one horseback outfitter, one whitewater outfitter, etc.) but there are many other organizations also providing these wilderness activities. Likewise, Wolfcreek Wilderness School is only one organization providing wilderness experience based education to companies, schools, and individuals. These other organizations also need the national forests for their activities and training programs.

The dollars produced by recreational activities in the national forests can be illustrated by a number of businesses who outfit, equip, and arrange wilderness activity. In Atlanta alone, the outdoor specialty equipment stores for hiking, backpacking, and climbing, produced over $5 million dollars in sales last year and grow 7-10 % annually. That does not include any hunting and fishing equipment, in itself a much bigger market. The Adventure Catalog 's horseback riding outfitter, Sunburst Stables, has done 2000 horseback rides this year and produced $75,000 in revenue, all of which has been spent in the local community. The Adventure Catalog's whitewater outfitter, Wildwater Ltd., took 29,000 people rafting this year, and employs 125 people. At an average cost per trip of $45, that represents revenue of $1.3 million and represents 14% growth from the year before. And two other outfitters run the Chattooga River, plus ten other outfitters run the Nantahala River. One of these outfitters, The Nantahala Outdoor Center, is even bigger than Wildwater, Ltd.

In regard to sales generated by experience based educational organizations, Wolfcreek Wilderness School's 1988 revenues were $300,000. That is only one school. Some of the other, much bigger executive training organizations in Atlanta who use the national forests, include companies like Executive Adventures, Project Adventure, and Executive Expeditions. These organizations represent a multi-million dollar use of the national forests. Other organizations like Wilderness Southeast and Outward Bound also depend on the forests for their wilderness and training programs. Intangible economic impact of these programs is virtually incalculable. What is the value of a more productive American corporation, or an inner city child who becomes a leader in a crack ridden neighborhood? These are the products of wilderness educational experiences.

Nowhere can the **damage** to the wilderness experience be more clearly seen than in the case of Sunburst Stables, an organization dedicated to mountain horseback riding in the Chattahoochee National Forest. (see photo exhibits). Clearcut forests and logging roads have caused massive erosion; destroyed scenic vistas; are causing their only campsite to be destroyed from silting caused by a clearcut above it; a pristine mountain stream is being destroyed by the same silting; and a general degradation of the wilderness experience is taking place because of extensive logging throughout the national forest in which they provide horseback riding experiences. This degradation of experience is being perpetuated by replanting pine stands, then spraying herbicide to kill off the hardwoods. Pine stands are far less visually appealing than the mixed wood forests right next to them that have not been clearcut.

Sunburst Stables is an ecologically oriented outfitter who recognizes the value of a true wilderness experience. They practice minimum impact camping and equestrian techniques and are vitally concerned with the erosion caused by their own horses. Sunburst actively makes extensive anti-erosion channels across the horse trails that they have created in the national forest. But four wheel drive vehicles and motorcycles riding illegally through the forest flatten these anti-erosion methods faster than they can put them up. Sunburst Stables has also requested a larger area to ride in so that they can rotate trails for less impact on the forest. This request was refused by the Forest Service because of conflict with logging operations. We hope you can change that. All of these factors cause a multiple point degradation in the wilderness experience that our clientele is searching for in mountain horseback riding experiences in the national forest.

Solutions and Suggestions

The future for high quality forest experiences is dependent on efforts to preserve the innate wilderness of the national forests. The recreational and educational value of activities like hiking, horseback riding, wilderness training, and whitewater rafting can be easily destroyed by more logging roads and logging. If large tracts of national forests like the Chattahoochee, Sumpter, Cherokee, and Nantahala are marked for maximum modification by logging operations, it will be at the expense of wilderness recreation and education. **Better planning** by the Forest Service to incorporate recreational and educational uses is the first step. Indiscriminate clearcutting and further building of logging roads is at odds with what wilderness outfitters are trying to provide for the public: true wilderness experiences. Since most outfitters already have a deep respect for the wilderness and its preservation, a joint effort with the Forest Service to recognize recreation and education as vital and growing interests in our national forests will create a future with priorities for our national forests shared in a true multi-use sense.

The public and organizations who use the forests must make responsible use of them, and that starts with awareness of the **"no trace ethic"**. The Adventure Catalog, Wolfcreek Wilderness School, and all of our outfitters make this a number one priority in every activity we offer.

Realistically, some problems can only be solved by **spending**. Allocation or redirecting of funds for physical improvements and personnel should be part of the plan. In the Chattahoochee/Oconee national forest, only 12% or $1.2 million of the congressionally appropriated dollars currently go for all recreational activities. Only 4% or $446,000 of the Forest Service's budget goes to Wildlife and Fish management. Volunteer organizations now maintain all of the footpaths. We need more to be built, and more money for the maintenance of existing trails. Outfitters like Sunburst Stables build all of their own trails, at no cost to the Forest Service. They all need help. The Forest Service needs more money to be allocated for development of recreational trails and other facilities, information services, and especially law enforcement against abuses in the national forests.

Senator **Fowler**. On that final point about the Forest Service spending more money for recreational services, how do you describe the existing trails and roads provided by the Forest Service, are they too extreme, or how do you describe them for recreational uses?

Mr. **Cipcic**. The least impact that we can, you can provide access to the backcountry is a foot trail, and all of the foot trails are maintained by private organizations. Sunburst Stables maintain and cut their own trails. They don't get any money whatsoever, at no cost to the Forest Service, at no cost to the taxpayer.

When a storm comes through and knocks trees across the trails, it is up to voluntary organizations to go out and clear them, because there are no funds that are available for that.

I might add, Mr. Chairman, that the tract of land that we were talking about, the Sunburst Stables, that these photographs depict, and, incidentally, will you enter these with my testimony, the photographs?

Senator **Fowler**. Absolutely. They will be made a part of the record.

[The photographs submitted by Joseph Cipcic will not be a part of the printed hearing.]

Mr. **Cipcic** [continuing]. Is at the southernmost quarter of the Chattahoochee National Forest, 15 minutes outside of Helen, Georgia, which, as you know, is a very popular, probably the most popular mountain town, and that type of demand upon a tract of land like that, it is being really visually destroyed and there is very bad erosion and we feel is misdirected.

Senator **Fowler**. How would you describe the economic value of the tourist, retirement, and recreational industries in Georgia as related to the forests?

Mr. **Cipcic**. In a word, profitable. It is not only moneymaking, it is growing. Towns like Helen, Georgia make all of their money out of tourism, not logging, and we see even more opportunities for glorious recreation and educational experience as well. They are growing. There are new uses that we want to develop but we are a little gun shy in situations like the case of Sunburst Stables to take people into these areas, and I mean we are talking about a 3 square mile piece of national forest that we want to run more trips into, but we see growing demands and we intend on virtually doubling our program starting the first quarter of next year.

Senator **Fowler**. Thank you, Mr. Cipcic.

Mr. **Cipcic**. Thank you.

Senator **Fowler**. Very, very much.

Our next panel is—Mr. Alcock, we will bring you back in case you want to respond—Ms. Jill Lancelot, director of congressional affairs, the National Taxpayers Union; Mr. L.N. Thompson, president of T & S Hardwoods, in Milledgeville; Mr. Peter Kirby, southeast regional director of The Wilderness Society; and Mr. Robert W. Pollard, Jr., senior vice president of Pollard Lumber Company in Appling, Georgia.

All right, while you are coming up, I understand that with us also today in the audience is State Senator Sonny Huggins from Lafayette and State Representative John Crawford from Lyerly, Georgia.

Stand up, gentlemen. Where are you?

There they are. I am delighted to always have my colleagues in public service.

[Brief pause.]

Jack, I think we will just hold you off for a moment here and let you maybe come at the end and let you respond, to give you the last word, and respond to anything that has been said.

First, we will have Jill Lancelot, who is director of congressional affairs for the National Taxpayers Union in Washington.

Ms. Lancelot, welcome.

STATEMENT OF JILL LANCELOT, DIRECTOR, CONGRESSIONAL AFFAIRS, NATIONAL TAXPAYERS UNION, WASHINGTON, DC

Ms. **Lancelot**. Good morning, Mr. Chairman.

Senator **Fowler**. I will ask you all to try to keep your testimony, as you know, to approximately 5 minutes.

INTRODUCTION

Ms. **Lancelot**. Good morning, Senator. We do appreciate you asking us to come to Atlanta to testify.

I want to thank you for inviting us here to testify on the Forest Road Program of the U.S. Forest Service and let me just say briefly that the National Taxpayers Union represents 200,000 taxpayers nationwide and we are a public interest group dedicated to eliminating wasteful and unnecessary Federal spending.

We would also like to commend you, Senator Fowler, for being a champion in trying to bring fiscal responsibility to the Forest Service Program, and to the program overall.

DISTURBED OVER THE SQUANDERING OF TAXPAYER DOLLARS THAT NOT ONLY MAY YIELD QUESTIONABLE RETURNS, BUT ALSO RESULT IN GREAT DAMAGE TO THE ENVIRONMENT

We, of the National Taxpayers Union, are deeply disturbed over the squandering of taxpayer dollars that not only may yield questionable returns, but also result in great damage to the environment. This misguided policy will result in the loss of other resources, again leading to more costs and diminished revenues.

OVERBUILT ROAD NETWORK

The U.S. Forest Service, the Federal agency entrusted with the management of our treasured national forests, manages a huge road system, eight times the size of the interstate highway system. This network of almost 400,000 miles of roads is enough to circle the Earth 14 times. The taxpayers are incurring enormous unnecessary expenses from this overbuilt road network.

Although we acknowledge the value that these roads may provide for all the multiple uses the Forest Service's management encompasses, we question the supposed need to expand this vast network. Currently, there are 1.2 miles of roadway for every square mile of national forest, yet the Forest Service wants to build 87,000 more miles of roadway by the year 2040. The cost for this enormous undertaking would be at least $4 billion—or $45,000 per mile.

The Forest Road Program consumes an enormous part of the Forest Service budget. And a great proportion of these roads in the national forests are built for the purpose of timber harvest. Many of these roads are built to access timber where there is little or no hope of recovering the costs of the roads through the timber harvested. In short, timber sales created by these roads are big money losers to the taxpayer. In fact, over $2 billion of taxpayers, money has been lost in the last 10 years, so it is painfully clear the costs of this program often exceed its benefits.

IT IS PRIMARILY DUE TO THE HIGH ROAD CONSTRUCTION COSTS THAT MANY TIMBER PROGRAMS IN THE FOREST SERVICE'S 10 REGIONS RUN BELOW COST

It is primarily due to the high road construction costs that many timber programs in the Forest Service's 10 regions run below cost. Since 94 percent of the roads are constructed for timber access while just 1 percent are used for recreational purposes, we wonder why the Forest Service should be obliged to build these roads at all. Building the infrastructure to carry on one's activities is simply a cost of doing business, and should be borne by the industry and not the taxpayer. It is simply scandalous, the number of unnecessary roads being built and the number of Forest Service timber programs losing money.

To give a general picture of how ominous this problem is, fully 74 of the 120 national forests were unable to meet the costs of their timber programs with timber receipts in 1988. We think this figure just tells one part of the story.

A trend we find most disturbing is the Forest Service requesting and receiving from Congress funds for the Forest Road Program (FRP) in regions whose timber harvests come nowhere near to meeting the percentage of the overall Forest Road Program dollars they receive.

TWO EXAMPLES: REGIONS 1 AND 3

Let me quickly mention two examples:

One is in region 1, which includes Montana and northern Idaho, which has a below-cost timber program in 12 of the 13 national forests in the area and a regionwide loss of over $24.5 million in 1988. This region utilized almost 19 percent of the total Forest Road Program for the Forest Service in fiscal year 1989, but only supplied less than 10 percent of the total Forest Service cut. Thus, we see that this region saps over twice the overall percentage of the Forest Road Program dollars for the proportion of timber it produces.

An example of the specific forest in the region is the Nez Perce National Forest in Idaho that received only $4.5 million in timber receipts in 1988 in comparison to timber expenses that totaled $5.2 million. That is a $700,000 loss on its timber program that year, which is a typical forest in many ways. However, the Forest Service responded for fiscal year 1989 by requesting $5 million for FRP road construction, and with the exception of $65,000, all of this was used to fund logging roads. It would seem to us the Forest Service encourages massive taxpayer investments to fund the timber sales programs in those very forests where the taxpayer is losing money on timber sales.

In another part of the country, as an example, region 3, the Southwest national forests, we see a similar imbalance. Unbelievably, 7 of the 11 national forests that are below-cost produce only 3.43 percent of the total Forest Service timber harvest, yet they consume over 11.25 percent of the overall forest road program's budget. We continue to see this problem, Senator, truly nationwide, including the forests in your region.

WHY DO WE CONTINUE TO POUR FEDERAL DOLLARS INTO THESE MONEY-LOSING FOREST BUDGETS?

And we continue to ask: why do we continue to pour Federal dollars into these money-losing forest budgets? Clearly, there are more efficient ways to run this program. We have a few suggestions:

SUGGESTIONS

One method is for Congress to direct the Forest Service to verify that cash receipts from all timber sales would meet or hopefully exceed logging costs on an annual basis. We feel that costs must be internalized—when opportunities are lost for recreation, for water quality or for other resources because of timber sales, those costs ought to be taken into account.

A second method for consideration would be a reduction in the Forest Road Program overall. The roads built for the timber industry should be paid for by the beneficiaries of those roads.

We also endorse a suggestion that was made by Robert Repetto, and a number of other resources economists, that we should install market-based user charges for recreation and other services, such as fishing, hunting, camping and hiking.

This nation continues to be in a budget crisis. Taxpayers have a right to demand that their tax dollars be used wisely. Yet, the Forest Service builds thousands of miles of roads each year at a cost of hundreds of millions of dollars for timber sales that *lose* money for the taxpayer. Taxpayers have the right to demand an end to this fiscal disaster.

The quantity of road building is leading us down a path of fiscal and environmental irresponsibility that must end. Instead, sound free market economics and sound environmental policies should coincide in our national forests.

[The prepared statement of Ms. Lancelot follows:]

NATIONAL TAXPAYERS UNION

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TESTIMONY OF JILL LANCELOT
OF THE
NATIONAL TAXPAYERS UNION
BEFORE THE
SUBCOMMITTEE ON CONSERVATION AND FORESTRY
SENATE AGRICULTURE COMMITTEE
OCTOBER 30, 1989
ATLANTA, GEORGIA

THE AMERICAN TAXPAYER ACTS THROUGH NTU

Testimony of Jill Lancelot
of the
National Taxpayers Union
before the
Subcommittee on Conservation and Forestry
Senate Agriculture Committee
on
October 30, 1989
Atlanta, Georgia

Mr. Chairman, I am Jill Lancelot, Director of Congressional Affairs for the National Taxpayers Union. NTU is a non-profit, non-partisan public interest organization dedicated to eliminating wasteful and unnecessary federal spending and balancing the budget. We represent 200,000 taxpayers nationwide. Thank you for this opportunity to present our views regarding the Forest Road Program of the U.S. Forest Service.

At the outset let me commend you, Senator Fowler, for being a champion in trying to bring fiscal responsibility to this program.

We are deeply disturbed over the squandering of taxpayer dollars that not only may yield questionable returns, but are, in fact, resulting in great damage to the environment. Naturally, this misguided policy will result in the loss of other resources, again leading to more costs and diminished revenues.

The U.S. Forest Service, the federal agency entrusted with the management of our treasured national forests, manages a huge road system 8 times the size of the interstate highway system. This network of 355,700 miles of roads is enough to circle the earth fourteen times. The taxpayers are incurring enormous unnecessary expenses from this overbuilt road network.

Although we acknowledge the value that these roads provide for all the multiple uses the Forest Services management encompasses, we must question the need to expand this already vast network. Currently, there are 1.2 miles of roadway for every square mile of national forest, yet the Forest Service wants to build 87,000 more miles of roadway by the year 2040. The cost for this enormous undertaking would be at least $4 billion -- or $45,000 per mile. Imagine!! If the additional roads being proposed are built, there would be more roadway than the distance to the moon and back!

The Forest Road Program represents a very large portion of the Forest Service Budget. And a great proportion of these roads in national forests are built for the purposes of timber harvest. Many of these roads are built to access timber where there is little or no hope of recovering the costs of the roads through the timber harvested. Thus, timber sales served by these roads are often big money losers for the taxpayers. A substantial volume of U.S. timber is sold below the costs incurred by the Forest Service for growing and providing access to the trees offered for sale. In other words, the costs of this program often exceed its income.

It is primarily due to the high road construction costs that many timber programs in the Forest Service's ten regions run below cost. Since 94% of the roads are constructed for timber access while just 1% are used for recreational purposes, we wonder why the Forest Service should be obliged to build these roads at all. Building the infrastructure to carry on one's activities is simply a cost of doing business, and should be borne by the industry and not the taxpayer. The degree to which roads are being built far above need and the number of Forest Service timber programs losing money are scandalous.

To give a general picture of how ominous this problem is, fully 74 of the 120 national forests were unable to meet the costs of their timber programs with timber receipts in 1988. This figure, of course, just tells one part of the story.

A trend we find most disturbing is the Forest Service requesting and receiving from Congress funds for the Forest Road Program (FRP) in regions whose timber harvests come nowhere near to meeting the percentage of the overall Forest Road Program dollars they receive.

Let us examine two Forest Service regions in different parts of the country that most closely illustrate our concerns:

Region 1, which includes Montana and northern Idaho, has a below cost timber program in 12 of the 13 national forests in the area and a region-wide loss of over $24.5 million in 1988. This region had a FRP budget of $13.9 million, or 18.75 percent of the total FRP budget for the Forest Service in FY 1989. For this enormous investment just over 1 billion board feet (BBF) of timber was harvested. This 1 BBF of timber, however, is only 9.73 percent of the total Forest Service cut. Thus this region saps over twice the overall percentage of FRP dollars than the proportion of timber it produces.

An investigation of a specific forest in the region is also instructive. The Nez Perce National Forest in Idaho in 1988 received only $4,449,000 in timber receipts in 1988 in comparison to timber expenses that totalled $5,166,000. Thus, Nez Perce lost $667,000 on its timber program that year -- a typical forest in many ways. The Forest Service responded for FY 1989 by requesting $5,050,000 for FRP road construction, and all of it less $65,000 was used to fund logging roads. It would seem that the Forest Service encourages massive taxpayer investments to fund the timber sales programs in those very forests where the taxpayer is losing money on timber sales.

In another part of the country, Region 3, the Southwest national forests, we see a similar imbalance. Unbelievably, 7 of the 11 national forests that are below-cost produce a mere 3.43 percent of the total Forest Service timber harvest. They consume, however, over 11.25 percent of the overall Forest Road Programs budget.

Why do we continue to pour federal dollars into these money-losing forest budgets? Clearly, there are more efficient ways to run this program. One method is for Congress to direct the Forest Service to verify that cash receipts from all timber sales would meet or hopefully exceed logging costs on an annual basis. Also, costs must be internalized -- when opportunities are lost for recreation, for water quality or for other resources because of timber sales, those costs ought to be taken into account.

A second method for consideration would be a reduction in the Forest Road

Program overall. The roads built for the timber industry should be paid for by the beneficiaries of those roads.

We endorse a suggestion made by Robert Repetto and a number of other resources economists to install market-based user charges for recreation and other services, i.e., fishing, hunting, camping, hiking, fuelwood extraction and so on. As Rapetto says, "Broadening the policy of charging market prices to direct beneficiaries and users of forest services would dilute the inevitable tendency of managers to give high effective priority to those activities that carry most of the budgetary freight. Recreational, wildlife, and other uses would receive more managerial emphasis as their demonstrated value and contribution to revenues increased."

This nation continues to be in a budget crisis. Taxpayers have a right to demand that their tax dollars be used wisely. Yet, the Forest Service builds thousands of miles of roads each year at a cost of hundreds of millions of dollars for timber sales that lose money for the taxpayer. Taxpayers have the right to demand an end to this fiscal disaster.

The quantity of road building is leading us down a path of fiscal and environmental irresponsibility that must end. Instead, sound free market economics and sound environmental policies should coincide in our national forests.

Thank you again for this opportunity to testify.

Senator Fowler. Thank you, Ms. Lancelot, very, very much. We will have the testimony from everybody and then we will go through a discussion.

Next, I welcome Mr. L.N. Thompson, the president of T & S Hardwoods in Milledgeville.

STATEMENT OF L.N. THOMPSON, JR., PRESIDENT, T & S HARDWOODS INC., MILLEDGEVILLE, GA

Mr. Thompson. Thank you, Senator.

I appear as president of the T & S Hardwoods and also as Chairman of the Region 8 Forest Service Timber Purchasers Council.

THE ROLE OF THE NATIONAL FORESTS TIMBER IS CRITICAL IN MEETING THE NATIONAL DEMAND FOR WOOD AND WOOD PRODUCTS

The role of the national forests timber is critical in meeting the national demand for wood and wood products. I realize this has been already debated and I am sure will be debated again.

Fifty percent of the forested lands in many areas of the Southern Appalachian is in the Forest Service or public ownership.

Many communities in the Southern Appalachian area depend on timber harvested from the national forests to sustain their economy. As was pointed out by Mr. Alcock, there are very few communities that are totally dependent on Forest Service timber, but it makes up an integral of their economic picture.

The demand for particularly hardwood, and that is the product we are involved in, hardwood lumber, veneer and plywood, they are stable, they are strong, they are not growing tremendously, but they are also growing at a modest rate.

WE STILL LACK AN ACCURATE, COMPREHENSIVE DEMAND ANALYSIS UPON WHICH TO BASE NATIONAL FOREST PLANS

We think the demand study or analysis prepared by the Forest Service in the development of the plan for the Southern Appalachian area was inadequate and in error in some significant way.

We have detailed these objections in an addendum to my testimony. We have thoroughly discussed the below-cost sales issue and I would first comment by saying that I am as opposed to losing money as probably anyone here and particularly as a taxpayer.

IMPORTANT TO NOTE

It is important to note that under the Multiple-Use Sustained Yield Act of 1960, the Forest Service is not required to make a profit on timber sales or on other services provided.

Senator Fowler. Should it be?

Mr. Thompson. I think it should. It wouldn't be easy, but I think it should.

Senator Fowler. Thank you, sir.

Mr. Thompson. I will rush along with this and then be questioned.

As a follow up to that, up-front cost for timber management are necessarily long-term investments, often recovered over 40 to 50 years. We all understand that.

TSPIRS

The Timber Sale Program Information Reporting Service (TSPIRS) program was recently developed by the Forest Service and the General Accounting Office to address timber sales accounting. Regardless of TSPIRS results, forest planning must continue to assess the benefits and the tradeoffs of the various Forest Service programs.

SUPPORT NEEDED

We do encourage you to support the agency effort to develop an All Resource Accounting System for Forest Service nontimber programs.

ANOTHER ISSUE

Another issue that I think is worth touching on, forest management does incur some investment costs irrespective of the type of ownership. It is inconsistent to oppose for budgetary reasons so-called below-cost timber sales of this nature and, at the same time, support capital gains treatment for private landowners. The economic activity generated by each investment is the same in the market place.

The idea now being put forth to shift production from national forests on to private forest land is, in my judgment, unrealistic. We will begin to see in the forest survey of the southern States where we have been building up timber inventory for my working life time of 40 years, a beautiful picture, we topped out on soft wood. I think the Chief alluded to that earlier. Hardwood, we are still in many areas running a surplus of growth over drain. I think we will see both of those imbalance or reverse on private lands very shortly, I will say in a 5-year timeframe.

Senator **Fowler**. May I interrupt you there?

Mr. **Thompson**. Yes, sir.

Senator **Fowler**. So I won't forget it.

Is that—in your opinion, is that attributable in any degree to the removal of the capital gains treatment in 1986 on private land, thus causing more cutting of existing stands that would not have been cut, especially the hardwoods, if we had not removed the capital gains treatment?

Mr. **Thompson**. You could probably ask a dozen people here and get a different answer from all of them.

Senator **Fowler**. I want a working man's answer.

CAPITAL GAINS TREATMENT

Mr. **Thompson**. All right, I want to answer carefully. The elimination of capital gains in my opinion will not hurt immediately, and I am talking of a 3 to 5 year time span, the supply of timber coming on market, simply because of where we are hurting ourselves today, in my opinion, on the capital gains thing is the timber supply, 20 years, 30 years and 40 years from the private ownership and we see it throughout Georgia, lands being cut——

Senator **Fowler**. And not replanted?

Mr. THOMPSON. Exactly, and I think even Mr. Pollard will have, will give you some suggestions of how that might be improved on.

THE 1990 RPA CONCERNS US SOME IN THAT THE ARRAY OF ALTERNATIVES IS VERY LIMITED

The 1990 RPA concerns us some in that the array of alternatives is very limited. The details on that are attached to my prepared statement.

In conclusion, we are convinced that the Appalachian ecosystem is not fragile as depicted in the "Mountain Treasures" report. Professor Fred Cubbage, who reviewed the report, replied to Laura Jackson that he would describe the Appalachian ecosystem as lush, rather than fragile. The economy of a lot of these small communities are fragile and is more dependent than I think many of us realize.

In addition, I would like to say there is a written statement of Mr. Brent Evans, which is included with my written statement, and I understand Mr. Evans is in the audience.

That concludes my formal remarks.

Senator FOWLER. It will be made a part of the record as though read. Thank you, Mr. Thompson.

Mr. THOMPSON. Thank you, sir.

[The prepared statement and attachments of Mr. Thompson follow:]

REGION 8
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STATEMENT FOR THE RECORD

OF

L.N. THOMPSON

PRESIDENT

T & S HARDWOODS INC.

ON BEHALF OF THE

REGION 8

FOREST SERVICE TIMBER PURCHASERS COUNCIL

BEFORE THE

SUBCOMMITTEE ON CONSERVATION AND FORESTRY OF THE

COMMITTEE ON AGRICULTURE, NUTRITION AND FORESTRY

OF THE

UNITED STATES SENATE

OCTOBER 30, 1989

Good morning, I would like to thank Senator Fowler and the other members of the Subcommittee for allowing me to testify today. I am L.N. Thompson, President of T & S Hardwoods and Chairman of the Region 8 Forest Service Timber Purchasers Council.

The Council, based here in Atlanta, is an affiliation of purchasers of national forest timber in the southern states. The membership of the Council includes most of the major purchasers of national forest timber. Our members, including those in the Southern Appalachian, depend on national forest timber for a substantial portion of the raw material supply necessary to operate our mills. Our members will therefore be greatly affected by any subsequent decisions made by this subcommittee and Congress.

I. Because of their substantial acreage, management of the Southern Appalachian National Forests affects not only the timber industry, but local economies.

In contrast to extensive private forestland ownership throughout most of the South, approximately 50 percent of the Southern Appalachian Mountain forests are in public ownership. Six national forests -- the Chattahoochee in Georgia, the Cherokee in Tennessee, the Jefferson in Virginia, the Nantahala and the Pisgah in North Carolina, and the Sumter in South Carolina -- span nearly 3.5 million acres. Together, these forests provide thousands of jobs, millions in local income as well as outdoor experiences for more than 12 million visitors every year.

For many North Georgia and Western North Carolina Counties, federal ownership controls much of the County land base. For example, 60 percent of Graham County, North Carolina claims federal ownership. For these counties, 25 Percent Fund revenues largely paid by the timber program play a crucial role in offsetting limited property tax bases.

Timber harvesting and forest management provide a crucial balance to the rural, local economies of the Southern Appalachian region. Dependence on recreation and tourism as the sole source of revenues to these communities will prevent development of strong, flexible local economies resilient to economic downturns. According to Forest Service statistics, the timber programs in the Southern Appalachian region provided almost 3400 jobs for the residents of Georgia, North and South Carolina, Virginia, and Tennessee in 1988.

Small businesses buy much of the Forest Service timber sold by the Southern Appalachian National Forests. Many of our members operate as small business under the Small Business Administration criteria. Reductions in the flow of timber from the Southern Appalachian National Forests would especially impact small businesses.

Demand for our forest products remains exceptionally strong. We are currently experiencing a period of stable or increasing domestic demands throughout the entire range of forest products. In 1988 and through the first nine months of 1989 demands have leveled out, but the volume of grades going into the various end uses is quite healthy.

During this same time frame, exports of hardwood lumber have been growing significantly. The volume of hardwood lumber exported has grown at a rate of 233 percent for this period and is likely to continue to expand well into the future. Recent major restrictions on the harvesting of tropical forests in Southwest Asia, Africa and Brazil are contributing significantly to the continuing increase in demand for temperate zone hardwoods.

Demand for our primary product, hardwood lumber, is strong not only from users of high grade lumber such as furniture manufacturers, but also from businesses utilizing lower grade lumber including container and pallet producers. One additional factor influencing increased demand of hardwood fiber from forest lands in the South is the dramatic increase in the use of hardwood fiber by the paper industry. Whereas ten years ago it was often difficult to move hardwood cord wood at any price, today we find prices for this commodity advancing far more rapidly than softwood sources. Much of the planned expansion of major pulp operations in the South is based on the use of hardwood fiber.

II. After repeated attempts by the Forest Service to accurately assess timber demand in the Southern Appalachian region, we still lack an accurate, comprehensive demand analysis upon which to base national forest plans.

As part of the national forest planning process, the Forest Service is required to assess demand for the timber harvested from each national forest. The demand assessment represents the only opportunity that the timber industry has to present its expectation of both current and future needs. No matter how carefully the Forest Service executes the subsequent steps of the forest planning process, an accurate timber demand is essential to an acceptable final forest plan.

Early in the recent round of forest planning, we recognized that the timber demand analyses prepared by the Forest Service for forest plan analyses were inadequate. The Regional Office in Atlanta accepted our concerns, and agreed to prepare a new analysis upon which to base future plans and management decisions.

The Forest Service prepared a timber demand study which examined industry's needs across the Southern Appalachian region. The Agency released the study in draft form to gain comments from knowledgeable reviewers. Reviews by several experts revealed crucial information missing from the study, with many of the study's conclusions unsubstantiated. Our own extensive comments attached to my written statement reflect many of these shortcomings. We felt the shortcomings of the study were so great that we asked the Forest Service to not complete their effort and simply begin anew.

Recently, the Forest Service released a final version of the study. Unfortunately, many of the inadequacies we identified remain. We again cannot trust the study's findings, nor can we accept any forest plan decisions based on the study's findings. We would welcome any opportunity to assist the Forest Service in its assessment of timber demand by providing the most recent timber values, demand estimates, and cost estimates available. The Agency's consideration of new timber demand information is crucial to a successful completion of the North Carolina national forest plan remand.

III. The timber programs managed by the Forest Service on the Southern Appalachian National Forests, not only comply with the law, but are designed to improve the health and structure of timber stands on the forests.

Forest Service data from the last two years point out that most of the Southern Appalachian National Forests lose money on a financial basis. The explanation of why is often ignored.

Continuous production of timber was one of the two original reasons for establishment of the National Forest System in 1897. The Multiple-Use Sustained Yield Act of 1960 further confirmed the use of the national forests to produce timber for the nation. This Act further gives the Forest Service the option to undertake projects and management prescriptions which might not return revenues to the federal Treasury, but which benefit the land or other resources. More recently in 1985, the Ninth Circuit Court in (Thomas v. Peterson, 753 F.2d 754, 1985) rejected the argument that timber can only be harvested where the value of the timber exceeds the cost of the harvest.

In spite of these directions and precedents, opponents of Forest Service below-cost timber sales rely on the profitability as the basis of their argument against timber harvesting on the national forests. A review of the finances of all other non-timber programs conducted by the Forest Service reveals that timber is not unique in its loses. For example, in fiscal year 1988 on a national basis, the Forest Service recreation program cost taxpayers almost $144 million while the program's revenues amount to only $34 million.

We strongly encourage the Subcommittee to support the on-going Forest Service and General Accounting Office effort to develop an All Resources Accounting System for Forest Service non-timber programs. While still in the early stages of development, application of the new accounting system on the Clearwater National Forest for FY 1988 revealed that the recreation and wildlife programs lost almost 1.5 million dollars and contributed less than 2 percent of the 25 Percent Funds returns to local counties. If the goal is to prevent below cost programs, then we should not single out the timber program.

Moreover, Forest Service researchers have examined how below-cost timber sales relate to an entire timber program. The results of the research conclude that inclusion of below-cost timber sales may result in the greatest long-term benefit for an individual national forest's timber program. The below-cost sales question cannot be addressed at the individual sale level, but must be examined from the program level as in the forest planning process.

The Timber Sale Program Information Reporting System (TSPIRS) recently developed by the Forest Service and the General Accounting Office was designed to address the below-cost sales issue. Though much maligned, the TSPIRS system in its present form provides extensive information on Forest Service costs. TSPIRS results in the appropriate format allow timber purchasers and the public to confront local Forest Service managers with excessive costs.

Using the TSPIRS data, we have talked with local Forest Supervisors to address the high costs which cause the poor TSPIRS financial results on the Southern Appalachian national forests. Finally, no matter what the TSPIRS results, forest planning provides the arena to assess the benefits and trade-offs of the various Forest Service programs.

Also contributing to the poor financial performance of the Southern Appalachian forests are the low timber revenues brought in by their timber programs. The Southern Appalachian forests were purchased by the federal government in the 1930's after years of overcutting and mismanagement. A review of the stand ages on the forests points out an abundance of stands in the 40 to 80 age classes -- the results of this rebirth. Today, as the Forest Service attempts to improve these young and middle age stands, the harvest consists of low value, poor quality logs. As the stands mature and timber values increase, financial performance of the forests should improve as well.

Forest management does incur some investment costs irrespective of forest ownership. It is inconsistent to oppose, for budgetary reasons, so-called below cost sales of this nature, and at the same support capital gains treatment for private landowners. The economic activity generated by each investment is the same.

IV. The carefully managed Forest Service road program provides access for both timber management and recreation on the Southern Appalachian National Forest.

Contrary to common rhetoric, the Forest Service will revisit the road construction question every 10 years with each iteration of the NFMA forest planning cycle. The current climate presumes that resource decisions made in the current round of planning will preclude ALL future options for forest management. The situation is not as pressing as claimed.

Whether the miles of Forest Service roads stretch between Denver and New Zealand is irrelevant to the road mileage needed to perform activities on the forests in the most environmentally sensitive manner. In fact, reducing road mileage on given projects could easily cause greater damage to the soils and watersheds on the forests. The Forest Service commonly reroutes proposed roads to avoid unstable soils and geologic formations. This often increases the miles of roads constructed.

Finally, on most of the Southern Appalachian national forests, reconstruction, or the rebuilding of forest roads to enhance safety and environmental protection, accounts for a little over half of the proposed road construction over the next ten years. The Region 8 Federal Timber Purchasers Committee advocates construction, maintenance and careful management of a road system with standards appropriate for a full utilization of the national forests resources. Such resources include recreation access, fire protection, and timber management.

V. Shifting the responsibility of timber production from the National Forests to private lands raises many serious questions.

Several recent proposals by the environmental community advocate shifting timber production from the national forests to private lands. Such proposals raise many serious concerns.

These suggestions ignore the increasing competition for private lands for recreation and retirement homes, urban development, and more importantly the objectives of the individual landowner. The increasing populations in the Southeastern United States intensify pressures on the timberland base. The Forest Service 1989 Draft RPA Assessment identifies the biologic potential of private lands; however, the document virtually ignores demographics and state and local restrictions which limit the production of timber.

Before the concept of a shift in timber production from national forest lands to adjacent private lands is seriously debated, the Forest Service must fully comply with NEPA requirements and completely examine the cumulative effects of such a shift on watersheds and wildlife habitat outside the national forest boundaries. The RPA Program and Assessment should provide a framework for such an analysis. At the local

level such changes must pass intense scrutiny before implementation.

The 1990 Draft RPA Program proposes by varying degrees in all alternatives to increase timber production on private ownerships while foregoing the opportunity to more intensively manage the national forests. The range of Program alteratives is severely constrained by this underlying assumption. A recent forest industry critique of the 1990 Draft RPA Program, attached to my written statement, details this concern. In orlder to meet expected future demand as identified in the RPA Assessment, all the recently completed forest plans must produce at their targeted levels and all nonindustrial private owners would be required to manage their lands as intensely as the forest industry currently manages its lands. The first expectation has not ever been realized and the second is flatly ludicrous, especially in the Southern Appalachian Mountains. The national forests must continue to supply our nation with a steady, continuous flow of timber.

VIII. The Southern Appalachian National Forests Support Tremendously Resilient Ecosystems.

Recent preservationist publications stress the fragile nature of the Southern Appalachian national forests. While these forests do contain many unique plant species, and their share of unstable soils, these forests are quite resilient to man's activities. All of the Southern Appalachian national forests were purchased in the 1930's following both extensive and intensive logging. As Dr. Fred Cubbage, Associate Professor of Forestry at the University of Georgia points out in his review of the Wilderness Society's "Mountain Treasures at Risk" monograph, "I viewed the national forests as lush rather than fragile environments; they have been logged (destructively) before, and came back quite well on the whole." Our review of the Mountain Treasures booklet is also attached to my statement. Today, research has shown us how we can manage these forests for timber production and other uses in an environmentally sound manner.

IX. Closing

In closing, the timber program plays an integral role in management of the Southern Appalachian national forests. Through harvesting, the composition of the forests' stands improve, at the same time, the program provides thousands of jobs and millions in revenues to local counties.

This concludes my prepared statement, I would be happy to answer an questions the Committee might have.

NFPA

May 4, 1988

Mr. John Alcock
Regional Forester
Region 8
USDA Forest Service
1720 Peachtree Rd. NW
Atlanta, GA 30367

Dear Mr. Alcock:

We have been asked by the Region 8 Timber Management staff to comment on the review draft version of the Southern Appalachian Timber Study (SATS). The purpose of this study was to estimate the demand and supply for national forest timber in the Southern Appalachian Region between now and the year 2000.

The National Forest Products Association (NFPA) represents over 750 companies and allied organizations in the forest products industry. The Public Timber Council within NFPA represents companies which purchase timber from the National Forests. Several of our members purchase timber from the southern Appalachian National Forests.

After a careful review of the study, we conclude that a substantial amount of work needs to be done before the study can be published in final form. Several of our comments reveal flaws in the study approach and in the critical assumptions underlying the study analysis. Additional review determined that the statistical analysis of the stumpage trend data is unacceptable because of extremely poor workmanship. Because of these weaknesses, the study conclusions are suspect.

Enclosed is a copy of our detailed comments. Several of the comments indicate the need for large amounts of reanalysis. Other comments however, will require but minor revisions of the study text. An outline of our concerns follows:

I. Assumptions Underlying the Analysis

(1) The authors made critical assumptions concerning the slopes of the regional timber demand curves without supporting evidence;

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(2) The study needs to address the "Demand" section in the FORPLAN model and to indicate whether the national forests within the study area should apply this modelling capability;

(3) We question the market structure assumptions underlying the stumpage price trend analyses;

II. The Quality of the Statistical Analysis

(4) The authors do not display the results and assumptions of the statistical analyses used in the study;

(5) The study makes critical and unsubstantiated assumptions about market cycles;

(6) The study applies incorrect statistical techniques to project stumpage price trends;

III. Purchasers' Behavior and Forest Service Stumpage Prices

(7) The study lacks a discussion of no-bid sales and poorly discusses the reasons behind the reduction in the average number of bidders per sale;

(8) The study does not adequately explain the reasons behind the drop in Forest Service stumpage prices;

(9) The study does not investigate the volume under contract on the national forests;

IV. The International Export Market in Future Stumpage Demand

(10) The conclusions of the study ignore the effects of exports on future stumpage demand;

V. Alternative Approaches to the Demand Problem

(11) the study relies on a single approach to the timber demand problem -- stumpage trend analysis. A comprehensive survey of mill owners would provide data to confirm or disprove the conclusions of this limited analysis.

We would welcome the opportunity to meet with both your staff and the authors to further explain our problems with the study. Such a meeting would insure that the views of the timber industry are completely and correctly represented. I will be in contact with your staff shortly to arrange such a meeting.

In closing, we would like to thank you very much for the opportunity to comment on the study. We hope that the study will be completely reworked and the shortcomings completely addressed before the study is released to the public. Please do not hesitate to call me at 202/463-2751 if you have questions on our review.

Sincerely,

Kent S. Robinson
Policy and Programs Analyst

Enclosure
cc: Randy Denman, Powell Industries
Chris Barneycastle, SLMA
Huey Long, Tolleson Lumber,
Southern Federal Timber Purchasers Council

A Review of the Southern Appalachian Timber Study

I. Assumptions Underlying the Analysis

1. The Demand Curve Slope Assumptions Are Inappropriate

Text: Page 11-12. "The rationale for computing a single, invariant timber price for FORPLAN stems from the assumption that the Southern Appalachian National Forests face a perfectly elastic (horizontal) demand curve...This is, perhaps, especially true in the case of the Southern Appalachian National Forests because they account for a relatively small portion (about 10 percent) of the regional timber harvest."

Comment: This assumption throws the results of the entire study into question. By accepting the assumption of a horizontal demand curve, the authors turn the design of the entire study away from the difficult--but needed--task of developing non-horizontal demand and supply curves.

The authors cite a harvest market share of "about 10 percent" as the basis of their decision to make the horizontal demand curve assumption. There is no citation, or series of citations, supporting this crucial figure. If no citations are available, detailed evidence must be presented at this point in the study to support the assumption. Further, the text does not develop nor cite criteria which would support or explain that 10 percent was a "relatively small" enough proportion to warrant a horizontal demand curve.

To the contrary, on page 99, the study displays evidence that the 10 percent assumption cannot be accepted for several of the products considered in the analysis. The data in Table A below are taken from Table III.E.3 on page 99 of the study which displays levels of growing stock by ownership class.

Table A

Species	National Forest (MMCF)	All Ownerships (MMCF)	Percent NF
Select Red Oak	477.2	1400.0	34
Other White Oak	689.9	2456.9	28
Other Red Oak	639.3	2436.9	26
All Hardwoods	3524.0	15750.5	22

Table A indicates that for several products, the national forests have the potential to command a substantial share of the log market. In the case of select red oak, the national forests almost certainly do not face horizontal demand curves.

The horizontal demand curve assumption must be reviewed for each species/grade group produced on the southern Appalachian national forests. In order for the study to be complete, separate assumptions and curves for each group must be developed.

2. FORPLAN Should be Used to Model Demand Curves for Some Species

Text: Page 11. "Timber stumpage prices within FORPLAN are comprised of two components: (1) the beginning-year base prices which enter the model, and (2) the relative rates of price increase over time...The rationale for computing a single, invariant timber price for FORPLAN stems from the assumption that the Souther Appalachian National Forests face a perfectly elastic (horizontal demand curve)."

Comment: As detailed under Point I above, the national forests in the region may influence the market for several timber product groups.

Such groups may be best modeled with downward sloping demand curves. This is especially true of the select red oak group. Further, the higher prices bid by purchasers for red oak indicate that it is sufficiently unique to deserve its own output label and price trends in the forest's FORPLAN models.

Demand data can be entered into FORPLAN Version II models. The FORPLAN system has the capability to model demand curves for 20 different forest outputs. Refer to section P7.1 of the FORPLAN Version II Userguide for a complete description of the demand capability and data needs.

We strongly urge that the study should determine and report on which product groups on which national forests need to be modeled with the FORPLAN demand capability.

3. Changes in Market Structure Limit Validity of the Stumpage Trend Analysis

Text: Page 17. "Procedures. The focus of the analysis was on trends, i.e., on price changes from one period to the next rather than on an assessment of absolute values being paid."

Comment: Stumpage price trend analysis provides good indications of future market behavior only when the structure of the market remains the same as in the past. In this case, however, stumpage demand market conditions faced by both the national forests and private land owners have changed from when the stumpage trend data were first collected. NFPA cannot accept the assumption that past demand trends apply to current and future demand for two reasons.

First, recent data obtained from the USDA Foreign Agricultural Service (FAS) indicate a surge in exports of hardwood logs and lumber from ports surrounding the Southern Appalachian region. Table B displays the export figures for the past decade. This time frame closely approximates the time frame of the study data set.

Table B

Year	Volume in MMBF
1978	71.9
1979	89.2
1980	110.9
1981	149.0
1982	82.1
1983	94.2
1984	99.4
1985	122.7
1986	156.3
1987	221.1

The data from 1981 indicate that levels of exports had reached about 150 million in early parts of the data set. The 1986 level indicates that this level is reached on a repeated basis. The 1987 level may well indicate that the entire export market structure is changing. These changes are discussed on pages 59 and 63 of the study but their effects on the assumptions underlying the stumpage price trend analysis are never presented. The drop in the dollar in relation to the Japanese yen may also signal new market conditions and accompanying increases in exports.

Second, new mill capacity has been added in the Southern Appalachian region. Two oriented strand board (OSB) plants have been built in the last five years. In addition, a hardwood veneer plant has also recently come on line. This additional milling capacity is discussed on page 67, but again, its effect on the trend assumptions is never presented.

The combination of these two factors represent substantial changes in the stumpage market structure within the time frame represented in the data set. In order to reflect the effects of each of these changes on the stumpage trend line, dummy variables should have been included in the regression analyses breaking apart data collected before and after these changes occurred. Without recognition of the structural changes which have occurred throughout the data set, the analysis is invalid and unacceptable.

II. The Quality of the Statistical Analysis

4. The Authors do not Clearly Display Results and Assumptions of the Statistical Analysis

Text: Page 18. "The third step was to statistically fit a regression line through the natural logarithm of the real price data points."

Comment: The natural logarithm transform seems to have been selected on a blanket basis with no regard for the best fit of the data points. No justification for the selection of this model is given, and the "goodness of fit" question is never addressed. Further, there are no displays of residual analyses from each regression, and no discussion of the statistics computed during the regression process.

The lack of regression statistics becomes especially crucial because the study makes repeated use of trend line slopes which were developed as coefficients in the regression equations. Any variation (error) in the trend line coefficients would result in changes in the stumpage price trends. Differences in stumpage price trends might result in different conclusions being drawn from the study. The regression error terms for the slope coefficients must be displayed in the study.

NFPA cannot accept the results of the study without a description of the model development process and the statistical errors which accompany the regression process.

There is a discrepancy in the text concerning the curve forms selected for trend line analyses. Page 18 refers to a natural logarithm model, while page 124 refers to a logistic growth model. Reviewing the analysis presented, it is our view that neither is acceptable as models which fit the data well.

5. The Study Makes Critical and Unsubstantiated Assumptions about the Market Cycles

Text: Page 21. "Prices for every product show a declining real price trend. Evidence of a cycle is evident, especially in the hardwood products." Page 124. "It is important to realize that the 10-year period used in these analyses spanned one complete business cycle."

Comment: If the authors of the study conclude cycles occur in the stumpage market, then the presence of cycles in the data sets must be confirmed with statistical tests. The "cycle" concept for stumpage prices should be used only after tests confirm the presence of such cycles.

6. The Study Uses Improper Prediction Techniques

Text: Page 17. "The objective of this section (Stumpage and Log Prices) is to take the pulse of the Southern Appalachian timber market over the 1977-87 period by analyzing price trends."

Page 124. "Our forecasting approach is to indicate, based on observation of recent price trends (from Section III) and judgement regarding future market conditions, the general direction of stumpage price movements over the next 12 years."

Comment: What is the purpose of the stumpage price trend analyses? Is it to determine current purchasing and harvest levels, or is it to predict prices until the year 2000?

If the purpose is to determine current purchasing and harvest levels, the technique is suspect. As noted above, several structural changes have occurred in the regional hardwood markets. Such changes preclude the use of historical data to predict current situations.

If the purpose is to predict stumpage prices to the year 2000, then the study has applied the wrong statistical techniques. The use of simple regression analysis to predict trends outside the range of the data set requires dangerous assumptions of a continuing trendline. With the recent changes influencing the data set, the authors cannot reasonably make this assumption. If the authors wish to predict trend line outside the range of the data set, then complete time series analyses must performed. Error estimations in the form of confidence intervals must accompany each prediction.

In any case, the regression techniques applied in the study for predicting long term trends are inadequate.

III. Purchasers' Behavior and Forest Service Stumpage Prices

7. The Study Does not Discuss No-Bid Sales and the Reduction in the Number of Bidders

Text: Page 36. "During the past 10 years, the average number of bidders per National Forest sale in the Southern Appalachian study area was 2.3. Since 1982, however, that number has steadily decreased to an average of 1.8 bidders per sale." Additionally, the graphs on page 34.

Comment: The study completely fails to consider sales which had no bidders. No-bid sales provide an indication of the limits of the stumpage market demand. Such sales represent the point at which no timber is demanded for a proposed price.

The study must more completely address the reasons why purchasers eschew Forest Service timber. Several factors need to be examined: (1) less desirable mixes of species and log grades on recent sales; (2) undesirable mixes of species and products harvested from the sale; (3) the timing of national forest timber sales, (4) changes in the Forest Service's contract financial requirements; and (5) increased environmental mitigation costs.

The study should investigate the number of bidders on sales with large quantities of high grade logs of preferred species to determine if there are different trends affecting, and a greater number of bidders interested in, these sales.

8. The Study Does Not Adequately Explain the Drop in Forest Service Stumpage Prices

Text: Pages 33 and 35. "The Forest Service also seeks top prices but is willing to sacrifice income to meet certain administrative, silvicultural and environmental constraints. Some of the conditions that may have contributed to falling National Forest timber prices during the study period are discussed below." Graphs on page 34.

Comment: Over the study period, several changes in Forest Service policy and regulations have occurred which have worked to reduce the value of Forest Service stumpage. These include the five factors listed above: (1) less desirable mixes of species and log grades on recent sales; (2) undesirable mixes of species and products harvested from the sale; (3) the timing of national forest timber sales; (4) changes in the Forest Service contract financial requirements; and (5) increased environmental mitigation costs. The study text needs to be expanded to address those factors that were not discussed adequately or at all.

First, a review of Forest Service sales must to be made to determine whether the reduced stumpage prices reflect the sale of less desirable grades and species of timber on recent sales. A change in grade and species mix may be partly responsible for the recent low stumpage values exhibited in the graphs on page 34.

Second, the study should also examine the mix of species, grades and products which can be produced from a sale. The preparation of lump sum sales with mixes of sawlogs and pulpwood may be acceptable for some purchasers. Other purchasers may be discouraged by the mix of products on a sale and bid at a reduced rate or not at all. Such mixing may be reflected in the graphs on page 34.

Third, the Forest Service does not sell sales evenly over the year. The simultaneous release of several sales may exclude purchasers with limited financial resources. The effects of this practice need to be addressed in the study. These effects may also be seen in the page 34 graphs.

Fourth, recent changes in the financial requirements of the Forest Service standard timber sale contract may also reduce the stumpage price for national forest timber. For example, since 1982, requirements have been added for increased downpayments, midpoint payments, and increased performance bonds. These changes may have helped to depress stumpage rates as shown on page 34.

Fifth, environmental mitigation requirements have generally increased for all types of sales over the study period. Advances in timber sale design and layout have changed the requirements for tractor sales as well as for cable operations on difficult terrain.

It is crucial to recognize that mitigation costs provide benefits to resources other than the timber resource. In some cases, K-V funds provided by purchasers are used to enhance soil, water and wildlife on timber sale sites. While the benefits of the projects are shared among several resources, they are paid for by the timber program and timber purchasers. This misallocation of costs must be recognized in any discussion of stumpage rate decreases.

The text on page 36 does address the problems encountered during the 1983-85 changeover to new volume tables and utilization standards. This change may have been responsible for a portion of the stumpage rate decreases.

None of the six factors discussed above is related to consumer or end-product demand. The graphs on page 34 indicate that for several products, the volume purchased in recent years is at record levels. On page 53, the study applies Forest Survey data to confirm this demand, "Indeed, the harvest levels during the period 1983 to 1985 are higher than for any of the past 15 to 20 years."

The factors which have caused the decrease in national forest stumpage rates are factors which the Forest Service can work to control. The study implies that Forest Service policy and regulations have a direct effect on the revenues generated by the timber sale program.

9. The Study Ignores the Volume-Under-Contract Question

Text: Page 31. "Most timber sale contract terms in the Southern Region cover a three-year period, which is shorter than contract periods in the West."

Comment: Detailed examination of the uncut volume under contract can indicate whether a specific class of purchasers is having difficulty obtaining timber. Additionally, the uncut volume under contract can be examined to determine whether a shortage of appropriate logging equipment is causing a backlog of unharvested volume.

The study does an excellent job of recognizing the differences between stumpage prices and delivered log prices (page 20). Unharvested volume under contract represents a tie between these two sets of prices. The volume of timber under contract is an indicator of the derived demand between the stumpage and delivered markets. In lieu of examining the uncut volume under contract, the study should examine the ability of the Forest Service to provide an even, dependable flow of timber sales.

IV. The International Export Market in Future Stumpage Demand

10. The Study Ignores the Effects of Exports on Future Demand

Text: Pages 63-66, 124. "The export market for higher grade hardwood lumber in general and oak lumber in particular has become a major force in the domestic hardwood market... The relatively low value of the dollar has accelerated growth in European and Japanese demand..." Additionally, the first paragraph on page 66 deals with this issue.

Comment: The study addresses the recent expansion of the export market for hardwood logs, lumber, and veneer. However, predictions of future consumption (beginning on page 124) fail to review the impact of the international export markets on possible future demand trends in the Southern Appalachian region.

International markets cycles are often different from domestic market cycles. This idea and its implications should be integrated into the paragraph at the bottom of page 124. Foreign demand may support hardwood stumpage prices in periods of low domestic demand.

V. Alternative Approaches to the Demand Problem

11. The Agency Should Conduct a Comprehensive Mill Survey

Text: Page 50. "All primary wood-using plants in the states of Georgia, North Carolina, South Carolina, Tennessee, and Virginia are canvassed periodically to determine levels of industrial timber products produced by county."

Comment: The study refers to surveys monitoring mill production. NFPA strongly recommends a survey to sample the following information from a sufficient sample of mills in the region:

-preferred species and grade
-preferred tree size
-substitution ability of log types
-preferred average annual consumption of logs of each type
-minimum annual and seasonal consumption--shut down supply level
-minimum annual and seasonal level needed to prevent curtailment of operations
-preferred sale locations
-preferred sources and why--if not national forests, why?
-annual consumption from the national forests
-annual consumption from other ownerships

-expected imports of logs from other states and regions
-ability to obtain sufficient log supplies

-planned capital improvements in the next 5 to 10 years which would reduce conversion costs or increase mill capacity
-is there sufficient volume under contract to obtain long term financing to make capital improvements
-examines demand of international export buyers
-examines the demand from independent loggers without milling capacity.

Such a survey with guarantees of confidentiality would provide a check on the conclusions of the stumpage price trend analysis.

National Forest Products Association
April 27, 1988

NFPA

October 3, 1989

Ms. Jo A. Bridges
Public Affairs Office
USDA Forest Service
P.O. Box 96090, Room 3117
Washington, D.C. 20090-6090

Dear Ms. Bridges:

The National Forest Products Association (NFPA) and American Forest Council (AFC) appreciate the opportunity to comment on the Draft 1990 RPA Program. This draft document is a significant improvement over past RPA Programs, in that it is much easier to read and comprehend. However, we believe significant modifications are necessary for the final document to be useful national planning tool.

Together, NFPA and AFC represent over 750 forest product companies and allied organizations throughout the United States. The RPA Program, combined with the RPA Assessment, chart a 50-year course for both the public and private forestlands of the United States. The Final RPA Program, although a recommendation for a Forest Service long-term strategy, will significantly affect each of our members. The strategy which is implemented by the Forest Service will determine both the manner in which private lands must be managed, and our ability or inability as a nation to supply future public demands for forest resources.

The strength of our nation is dependent upon our ability to produce a continuous supply of natural resources from the forested lands of the United States. The projections made by the U.S. Forest Service in the 1989 Draft RPA Assessment clearly show a substantial increase in demand for all resources derived from the forest over the next 50 years. The Draft Assessment also illustrates that the forested lands of the United States have the ability to meet these future demands.

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We offer the following specific comments and suggestions on the Draft Program:

I. THE DRAFT PROGRAM DOES NOT ILLUSTRATE HOW IT RESPONDS TO THE RPA ASSESSMENT.

From the information presented, the reader has no way of measuring how responsive any of the proposed strategies are to the findings contained in the Draft Assessment. Figure 6.18 (page 148) represents a weak attempt at best. Text, figures, and tables must be added which clearly illustrate how each proposed strategy affects lands and resources on non-Forest Service ownerships. Specifically, the final program should show what levels of production other ownerships – both public and private – will have to achieve based on Forest Service production and national demand projections in the RPA Assessment.

Evaluating the Draft RPA Program Strategies based on the findings of the Draft RPA Assessment is, in many cases, impossible because different units of measure are used. For example, the Program shows harvest levels in billion board feet while the Assessment uses billion cubic feet.

Moreover, the lack of a Final RPA Assessment limits our ability to intelligently comment on the Draft Program. For example, many of our specific comments on the RPA Program are tied directly to the findings in the RPA Assessment. These comments may be rendered moot if the data presented in the Final Assessment is significantly different from that presented in the Draft. In the future, the Forest Service should ensure that the Final Assessment is released well in advance of the Draft Program.

II. THE ROLE OF NONINDUSTRIAL PRIVATE FOREST LAND (NIPF) PROPOSED THROUGHOUT THE DRAFT RPA PROGRAM IS UNREALISTIC.

The Forest Service clearly prefers a strategy which places the emphasis for commodity production on NIPF. The Forest Service's proposed future roles, together with the five strategies put forth, indicate an increasing emphasis on producing noncommodity resources on national forests and transferring the responsibility for meeting the increasing demand for timber and other commodity resources to private lands. Four of the five strategies would maintain or minimally increase current harvest levels on national forests; however, these increases are not proportional to the RPA Assessment projected demand increases.

More importantly, the resultant levels of commodity production on NIPF are not realistic or achievable.

Even under the highest harvest levels proposed for national forests (Strategy 3), the 256 million acres of NIPF in 2040 would have to grow and harvest about double what they do today. The attached graph (Figure 1) illustrates the significant amount of harvesting required from NIPF to supply the public's demand --even with the 24% harvesting increase proposed for national forests in the RPA Assessment. In 2040 every acre of NIPF would have to be as productive as industrial land is currently (Table 1). Under any strategy NIPF lands would be producing almost twice as much per acre than the 85 million acres of national forests designated as timberlands.

In promoting NIPF as the panacea to future timber supply, the RPA Program apparently fails to consider the demographics and priorities of the individual landowner. A high percentage of NIPF lands are small, making investment in forest management inefficient. In addition, over 50% of NIPF landowners are more than 57 years old, indicating that a significant number of these parcels will become even smaller through estate sales over the next 10 - 15 years. In addition, many NIPF lands are adjacent to or within urban areas, and are therefore, increasingly subject to local and state ordinances which restrict the ability of the private landowner to manage their land for timber production. Finally, maximizing timber production is not a priority to many NIPF landowners. A recent survey of NIPF landowners conducted by the Outdoor Recreation Commission found that 99% listed "leasing for recreation" as the most important use of their lands, while 62% had turned down offers to lease the timber rights.

The RPA Assessment shows that the forms of recreation which will increase in demand the most over the next five decades are driving for pleasure, walking for pleasure, and picnicking. The wildlife demands which will increase the most during this same period are cold water fishing and nonconsumptive uses. These public demands are clearly compatible with NIPF objectives, yet the Draft Program fails to recognize this.

The nostrum proposed in the Draft Program to ensure the unrealistic NIPF harvest levels is the Forest Service State and Private Forestry Program (S&PF). S&PF is effective in promoting good forest management on private lands; however, the Draft Program gives the erroneous impression that "x" dollars to S&PF will result in "y" increase in timber production from NIPF. We are aware of no direct relationship between funds invested in S&PF and private timber investments.

History demonstrates that simply because forest management of NIPF may earn 4% or better net of inflation, landowners do not automatically make these investments.

Forest investments are notoriously risky and there are many alternate investments which pay a comparable or better return. History also shows that landowners cannot be "educated" or simply exhorted into making investments in intensive forestry. S&PF should seek independent evaluations of the effectiveness of its programs and incorporate the findings in the RPA Program.

There are numerous key issues related to NIPF and future resource supply which should be, but are not evaluated in the Draft Program, such as: (1) the effect of tax treatment for forest landowners on timber supply; (2) the willingness of nonindustrial forest landowners to increase timber harvesting in light of changing management objectives and demographics; (3) the ability of private forest landowners to provide noncommodity resources; and (4) the effects of present and future federal, state, and local land use restrictions.

III. THE RANGE AND SCOPE OF STRATEGIES MUST BE EXPANDED

There are at least two additional strategies which should be developed to fully illustrate highly probable and realistic futures or impacts. One strategy should explore the impacts of a continued budget as in Strategy 1, but with an emphasis on responding to the findings of the RPA Assessment as in Strategy 4. The second additional strategy would represent a comprehensive nationwide forest resource (CNFR) strategy by expanding Strategy 3 to include an emphasis on responding to the RPA Assessment.

Currently, the five strategies proposed in the Draft Program appear to have been developed in a vacuum – without regard for how the Forest Service should most efficiently fit into a nationwide response to the RPA Assessment. A CNFR strategy would: first, consider our comments regarding NIPF to develop a realistic nationwide strategy for all forested lands to supply the demands projected in the RPA Assessment; second, determine the appropriate role of the Forest Service within the nationwide strategy; and finally, identify the effects of RPA Program proposals on lands other than national forests. This holistic approach to developing an RPA Program is clearly what the Congress intended when it enacted the Renewable Resources Planning Act.

IV. THE RPA PROGRAM LACKS AN ASSESSMENT OF THE EFFECTS OF ITS STRATEGIES ON REGIONAL, NATIONAL, AND GLOBAL ECONOMIES AND OBJECTIVES.

In its present form, the Draft focuses on how future demands and supplies affect Forest Service Programs. The Draft lacks adequate analysis and discussion of how national forest outputs will influence such issues as: (1) the balance of trade; (2) regional employment; (3) regional and national economies; (4) affordable housing; and (5) the cost of stumpage. Without a thorough analysis of these and other important issues, Congress lacks the information necessary to ensure the strategy adopted for the Forest Service is consistent with national goals or other national objectives, outside the purview of the Forest Service, which effect forest management.

The economic analysis contained in the Draft Program is suspect. The values for commodity resources are derived from actual receipts, this is in sharp contrast to the methodology applied to develop noncommodity values. Noncommodity values are based on a series of assumptions using hypothetical "willingness to pay" criteria. From the standpoint of these resources being publicly owned, the "willingness to pay" concept may be distorted or at best unknown.

Where the Program uses indirectly developed estimates for noncommodity values, it must identify where indirectly determined prices are applied in the analysis and Program results. Further, the relative quality or certainty of these estimates must be clearly explained as well as the methodology for their derivation. The authors should include such a description before explanation of the RPA strategies. This description of price estimation techniques must be clear and understandable to the lay reader. In "An Improved Framework for Estimating RPA Values," by Peterson et al (1987), a reference which forms the basis for much of the Programs economic analysis, a strong, clear caveat is given in the application of indirectly determined prices. Peterson notes on page 8:

> "Published RPA values should be accompanied by an explanation of how they were derived and a statement of the specific questions to which they are and are not applicable. When values are not accompanied by such information, there is potential for misapplication."

The RPA Program fails to provide this caveat and leads its readers, especially the lay person, to misguided conclusions.

The Program makes additional unsupported assumptions in developing prices for application in the Program analysis. The authors assume that only timber supplied from the national forests has the ability to influence prices in regional markets. The potential influence of national forest on regional prices for recreation is never recognized. In many regional markets, Forest Service lands and permitted facilities provide the majority if not all of the opportunities for recreation. Downhill skiing in the western states provides an example of this type of market dominance.

Another assumption which draws the analysis into question is the assignment of "on-forest" prices. Timber stumpage is valued on-forest as standing stumpage, while recreation benefits are incurred on-forest during the activity. This comparison relates wholesale prices for timber with final value added products consumed by recreationists. A more accurate comparison would compare the prices for the two products at a similar point in their value development.

While a great effort by the authors and Forest Service researchers in recent years helped improve the estimation of noncommodity prices and consumer surplus, additional analysis needs to be performed on both consumer and producer surplus accounting stances before the RPA methodology can be considered complete.

The Program Appendix F briefly discusses how the Program analysis was framed to address questions of economic equity and efficiency. The Program concludes that the analysis should focus on efficiency analysis rather than equity questions and structured the analysis accordingly. This approach is shortsighted in that one of the primary purposes of the RPA Program is to develop a base or framework for asking equity oriented questions in the political arena.

V. THE RPA PROGRAM FINDINGS AND ANALYSES REQUIRE ADDITIONAL DOCUMENTATION AND EXPLANATION.

Many of the key findings, such as projected recreational use, employment figures, and present net values, are not possible to validate without additional documentation. Other findings require additional explanation. For example, the employment projections under each strategy do not show the average salary per job or the regional breakdowns. Also, there is no measure as to how the Program responds to the increasing demand for specific forms of recreation identified in the RPA Assessment.

Tables should be added to the text which illustrate how each strategy provides for future commodity and noncommodity resource demands. These tables should be broken down by decade to identify potential short-term shortages or surpluses. Text and tables should be added which explain where, if not on national forests, the demand will be supplied -- and if demand can be supplied.

The documentation and text is weak in its description and discussion of resource interaction and compatibility. The analysis contained in the Draft Program should, but doesn't appear to, reflect this interaction and compatibility. Those readers lacking a resource management or biological background could erroneously, for example, perceive that resources such as hunting, fishing, and recreation are excluded by timber management.

The Final RPA Program must include a discussion on: (1) the inability of the Forest Service to fully implement Forest Land and Resource Management Plans; (2) current environmental issues, such as the spotted owl, and their effects on future national forest harvest levels; (3) long-term environmental issues and the potential of the national forests to achieve projected harvest levels; and (4) the impacts to the nation if harvest levels are reduced on national forests.

VI. SUMMARY AND CONCLUSION -- THE RPA PROGRAM MUST BE RESPONSIVE TO THE RPA ASSESSMENT.

The Draft 1990 RPA Program must be modified to clearly illustrate: (1) how the Forest Service responds to the specific national demands projected in the RPA Assessment, and (2) the effects of the RPA Program strategies on forested lands other than national forests. Simply stated, to be useful, the 1990 RPA Program must identify the role of the Forest Service in achieving a nationwide long-term strategic plan to supply the natural resource demands projected in the RPA Assessment.

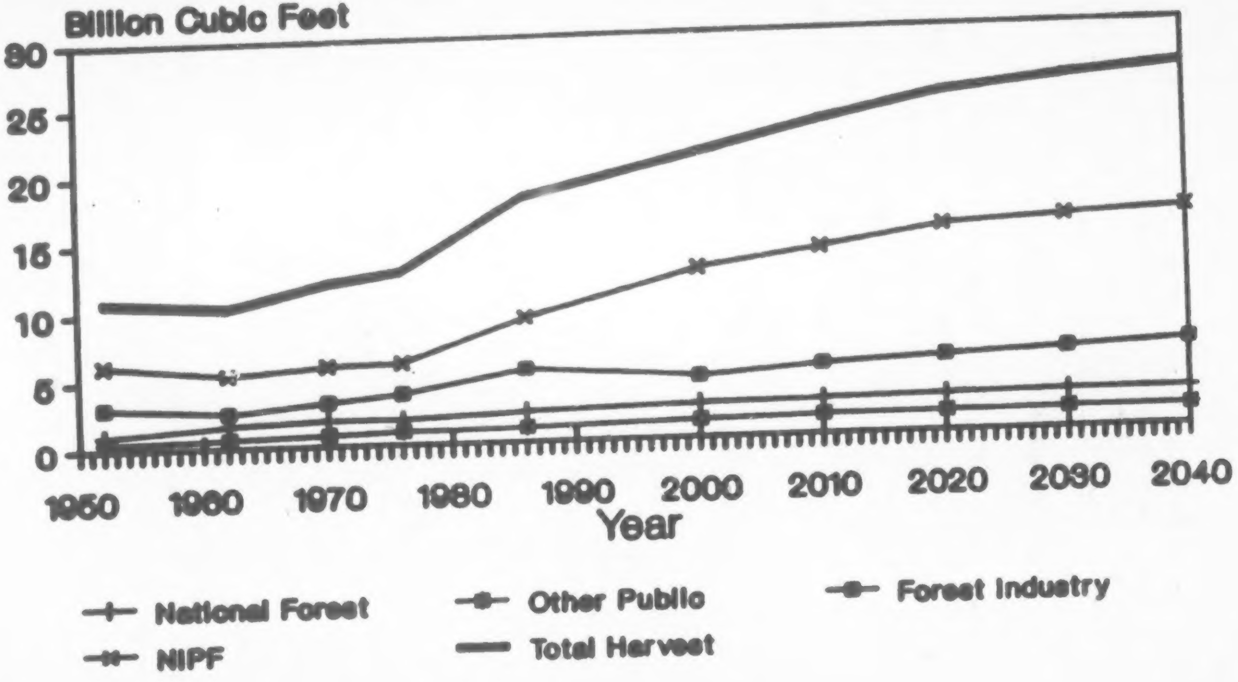
We are supportive of the RPA Program process, and will continue to work with the Forest Service to establish the RPA Program as a useful and credible document. We appreciate the opportunity to comment.

Sincerely,

Barry Cullen President, National Forest Products Association	Laurence Wiseman President, American Forest Council

Figure 1

Total Timber Harvest By Ownership



Source: USDA, Forest Service 1989 Draft RPA Assessment

Table 1

HARVEST/PRODUCTION PER ACRE PER YEAR

	1986	2040
	cubic feet	
USFS	26.8	34.5
Other Public	21.7	30.6
Industry	77.6	90.2
NIPF	33.3	62.5

MANAGING THE FUTURE OF AMERICA'S FORESTS IN SOUTH APPALACHIA

The National Forests of the southern Appalachian mountains constitute a valuable natural resource that is vital to the economic well-being of the region. Federal policymakers and interested citizens are focusing increased attention on how these six forests -- the Chattahoochee in Georgia, the Nantahala and the Pisgah in North Carolina, the Cherokee in Tennessee, the Jefferson in Virginia, and the Sumter in South Carolina -- are to be managed for the benefit of the region and the nation in the years ahead.

The issue of forest management on these "Mountain Treasures" is critical to the welfare of the region. These forests provide badly needed employment and support manufacturing and secondary industries that are often the mainstay of the rural economy. Moreover, the Mountain Treasures have the potential to contribute significantly greater outputs -- both recreation as well as economic -- to benefit the Appalachian region.

This brief report addresses current management practices and the resource characteristics and potential of these six national forests. More specifically, this report considers management practices in light of criticism by preservation groups, which seek to curb economic potential of the forest economy in the region by, among other things, expanding the domain of the Wilderness Preservation System and restricting timber management on these six forests.

The Resource

The National Forests that comprise the "mountain treasures" are tucked within one of the most abundant and productive forested regions in the world. With optimal growing conditions, transportation facilities, and the potential for future forest growth, the South rightly proclaims itself to be the "woodbasket of the world". Timberland that is available for timber production and capable of sustaining repeated crops of trees totals 182 million acres.

Private ownership dominates the Southern region, with private individual landowners constituting by far the largest ownership. However, about 122 million acres of timberland is in private hands other than the timber industry and therefore may not be available for harvesting.

The ownership pattern of Southern Appalachian forestland is distinguished by another anomaly. In contrast to the overall dominance of private ownership in southern forestry, roughly half of the forested land in the southern Appalachian Mountains is publicly owned. The six national forests in the region span nearly 3.5 million acres -- a fact that accentuates their importance to the regional timber supply.

The U.S. Forest Service, the federal agency charged with managing these forests, operates under a broad legal mandate which requires the agency to serve many uses rather than a single use. This multiple-use management philosophy guides the development of detailed plans on each forest. Through these forest plans the Forest Service sets output targets and makes land allocation decisions for each forest as required by the 1976 National Forest Management Act. This forest planning process allows for considerable public involvement and review of the agency's management proposals against the background of a wide array of options for the production of wildlife habitat, timber, recreation, scenic opportunities and other forest resources.

Economic Importance

Advocates of wilderness preservation consistently dismiss or understate the importance of the timber resource to the economy of Appalachia. According to a Forest Service analysis (TSPIRS Employment, Income, and Program Report), the forests in this subregion generated 2,878 jobs and $71,700,000 in 1988 alone. The TSPIRS 1987 Economic and Employment Reports for five of these Southern Appalachian national forests shows that the timber program provided almost 3,400 jobs in Georgia, North and South Carolina, Virginia and Tennessee, generated almost $79 million to local economies and more than $11.8 million in federal income taxes.

These figures, of course, only begin to suggest the importance of these forests to local economies where job creation and relatively high wage-paying industries have been scarce. Nearby pulpmills, for example, rely for their fiber supply on the pulpwood harvest from these five national forests. These manufacturing complexes, each valued at hundreds of millions of dollars, provide a substantial tax base, high-wage employment opportunities and badly needed financial stability to rural communities.

The National Forest timber program yields by law direct revenue payments to local counties for use in schools and county roads. The first 25% of all national forest timber sale receipts remain with local counties for these specific purposes to offset federal property tax repayments. Wilderness advocates count these payments as a "cost" in order to arrive at their conclusion that the timber programs fail to cover the agency's administrative and timber management costs and "lose" money. In fact, the nearly 2.6 million dollars in timber revenue collected by the six National Forests in FY 1988 for distribution to local counties is a form of federal revenue sharing that is critically important to rural areas. Clearly, any reduction in the timber sale level of these forests would have a direct and immediate impact on the economies of surrounding communities.

Forest Management

Any analysis of current management practices and attendant opportunities on the National Forests of Southern Appalachia must begin with appreciation for the condition of these forests and the actions needed to improve them. Seen in this light, the forest management record there is a remarkable success story. The federal government acquired these lands in the 1930's and 1940's following decades of mismanagement. Under careful management, these once depleted forests have grown back in stands that are typically between 40-70 year age classes. Many of these stands have yet to reach their full potential for timber production, a fact which largely explains the low volume of timber harvested on these forests in prior decades. As a consequence, Forest Service projections for future harvest levels are naturally higher given the steady increase in mature timber that will be available. In this context, these projected increases are not surprising, but rather reflect the healthy resurgence in timber volume that management practice have brought about.

Forest preservation groups have exaggerated the extent of projected harvest levels by failing to consider such factors. (For example, wilderness advocates ignore the fact that one major reason for low harvest levels in past decades has been the inability of regional sawmills to utilize small logs and their reliance on sawlogs. Today, however, that trend has been altered by demand shifts. The recent introduction of pulp mills and the adoption of small log technology have spurred demand for small logs, which are chipped for pulp and paper processing. In fact, the increased demand for pulpwood alone accounts for the doubling in harvested timber over the past decade. In other words, it is fairer to say that historic harvest levels were unavoidably low, rather than to describe projected harvest levels as too high. The National Forests of the region are simply responding to a demand that had not previously existed.

By any objective measure, the timber management intensities and harvest levels projected for these six National Forests are not excessive. In fact, they are modest relative to the importance of the resource to the regional economy. One indication that timber programs are not increasing over current levels can be found by examining changes in the National Forest landbase allocated.

The amount of land allocated to timber production by the recently completed planning process increased only 7.3% over previous planning levels. Secondly, according to National Forest's plans, harvest levels in the year 2030 --the end of this planning horizon-- will still be below the maximum capacity of these forests to yield timber consistent with full environmental constraints on a sustained yield basis. Third, Forest Service's inventory data found that annual forest growth exceeded annual harvests on all National Forests in the Southern Appalachian region.

Management "Costs"

The cost of managing the National Forests of South Appalachia have become the target of criticism from wilderness advocates who argue that timber management costs are excessive. Typically these critics use Forest Service figures from a "financial" or cash flow analysis to support their conclusions that timber management costs exceed resource benefits. Reliance on this strict financial view, obscures the important considerations of past timber stand history and the investment necessary to remedy past mismanagement.

Investments are and will continue to be needed in order to speed the recovery of these hardwood forests after decades of mismanagement. Silvicultural improvements on many sites, which were cleared for use as cropland, pastures and other uses, are necessary rehabilitation measures. Obviously, "profits" cannot be expected from such sites that are most in need of precisely the "kinder and gentler forestry" practices which critics find so costly. In these areas, low-quality, undesirable trees must often be cleared at considerable cost, sometimes requiring use of expensive equipment for operation on steep slopes. But these investments will pay dividends in future years with the growth of high-quality, valuable stands.

Curiously, wilderness advocates argue for full financial accountability for timber programs -- suggesting that they should be profitable on a cash flow basis - despite Congress's explicit direction that National Forest's are not to be managed in this way. The 1960 Multiple-Use Act specifically characterizes multiple use, the preferred management philosophy, as not necessarily the combination of uses that will give the greatest dollar return or the greatest unit output. A conspicuous example of this philosophy in practice is wilderness management, which of course provides the tax payer with no revenue now or in the future, yet requires millions of dollars each year in management cost all the same.

Environmental Impacts

Critics of timber management on the six national forests in South Appalachia allege that the timber program creates a variety of adverse impacts to the forest environment. Frequently, these allegations confuse conditions common to the western forest ecology with the very different conditions found in the Appalachians. To support claims that road building and other practices harm forest soils and water quality, for example, critics have relied upon technical studies of western forest conditions, and blindly apply them to the Appalachians. Contrary to the claims made by wilderness advocates, no published sources they cite substantiate the claim that clearcutting causes landslides in the south Appalachians. Neither does the technical literature support the claim publicized by advocates that nutrient-depleted soils cannot support regeneration of the original forest type. Again, these assertions are not confirmed by scientific analysis.

Elsewhere, preservation groups have repeatedly condemned the Forest Service for "over building" forest roads in Southern Appalachia. Here again, however, the facts belie their case. In the latter years of the forest plans for national forests in this region, roadbuilding actually declines, not increases or they have suggested. Simply stating the number of road miles the Forest Service plans to build over the coming decades does little to advance public debate. For example, reducing road mileage can sometimes result in greater damage to soil and water if poor forest access forces traffic into more direct, but less stable areas.

Moreover, a close examination of the agency's plans to build slightly more than 3,800 miles of roads over the next decade reveals that road reconstruction to enhance safety and environmental protection accounts for fully half of this total.

Finally, the Forest Service is required by law (NFMA 1976) to maintain and manage for biologic diversity this goal is addressed in each of the six Southern Appalachian National Forest's plans. These plans explain how vegetation and wildlife habitat conditions will vary over the life of the plan, and how diversity can be achieved. Wilderness advocates allege that the Forest Service neglects this objective despite the agency's careful compliance with the law. It must be noted furthermore that there is no scientifically acceptable definition of biological diversity. The definition, measurement, and management of biologic diversity are subjects of disagreement and even controversy, and are likely to remain so until some scientific consensus on this concept can be achieved.

Wilderness

In spite of the economic importance of timber management to South Appalachia, wilderness advocates press for substantial additions to the regions wilderness preservation system, which prohibits logging, developed recreation, roadbuilding and other resource activities. Yet on the six National Forests in South Appalachia formal wilderness acreage already totals 282,500 acres - - of which 164,000 has been added since 1984. In addition, almost 20,000 acres proposed for inclusion in the wilderness system are also currently managed for wilderness, not for resource production.

This does not count the many thousands of acres throughout these six forests which are not managed intensively for timber production and are therefore heavily used for recreation purposes. Still other areas not designated for wilderness are never managed for timber because of the wilderness-type experience they provide. For example, the Chattahoochee National Forest allocates 100,000 to be managed for their old growth characteristics. The Nantahala/Pisgah National Forest increased the acreage designated a semi-primitive area from 125,000 to 184,000. While considerations of further wilderness designation is justified, future designations ought to be decided in light of demand for their aesthetic experience in the Southern Appalachians.

Not surprisingly in their chronically depressed economy, demand for wilderness has been relatively modest. Of all the recreational visitor days recorded on these forests in 1988, only 3.2% were wilderness area visitor days. Future demand projections for wilderness use have been overly optimistic in part because use assumptions are notoriously arbitrary. In contrast to the relatively high demand scenarios developed in these forests plans during the early 1980's, for example, current wilderness use trends show a decline, or at best an unchanged level of demand.

In advancing their arguments against timber management, wilderness advocates envision a transition from a resource development economy to one reliant on tourism. At the very least this argument must be viewed with extreme caution in view of the consistent failure of wilderness recreation to replace the levels of economic welfare supported by a timber based economy. Responsible conservation groups recognize the perils of such easy optimism. William Shands and Thomas Waddell of the Conservation Foundation in a recent study address the issue of below-cost timber management, "As appealing as a transition to a recreation and tourism economy may be it is not a panacea... There is peril in hitching one's fortunes to a single industry -- even tourism. Diversification in a key to community stability."

Conclusion

The economic and environmental realities surrounding the forest use debate of Southern Appalachia lead to an important conclusion. It is not the forests of the region that are fragile, but the Appalachian economy that is fragile. The forests are, and can continue to be, a great strength in a region that has suffered from chronically high unemployment. Attempts to restrict timber management on the six national forests in this region must begin from this premise. Public policy must not ignore the potentially severe and far-reaching economic dislocation that could attend such a decision. Nor would such a decision be justified on the grounds of forest land stewardship.

The Southern Appalachian forests have undergone an impressive transformation from the abused and cut over lands that nobody wanted to "Treasure" that they are rightfully called today. This transformation is impressive testimony to the resilience of there forests and to the good land stewardship that has nurtured their resurgence. Attempts to characterize these forests as fragile ecosystems are flatly contradicted by the evidence of the past several decades.

That evidence is also dramatic proof the multiple benefits these forest can provide to the Appalachian region--recreation, forest products and employment, abundant wildlife, and wilderness among others. Intelligent application of management principles can insure the compatibility of both commodity and non-commodity production, thus obviating the need for the painful choice for the economy of the region.

WRITTEN COMMENTS PRESENTED
AT U.S. SENATE HEARING
OCTOBER 30, 1989 - BY BRENT EVANS
EVANS CABINET CORPORATION
DUBLIN, GEORGIA

"BELOW COST" TIMBER SALES IN THE SOUTHERN APPALACHIANS

MY NAME IS BRENT EVANS; I AM VICE-PRESIDENT AND GENERAL MANAGER OF EVANS CABINET CORPORATION OF DUBLIN, GEORGIA.

EVANS CABINET IS THE LARGEST MANUFACTURER OF KITCHEN CABINETS IN GEORGIA, AND AMONG THE LARGEST IN THE SOUTH. WE DIRECTLY EMPLOY TWO-HUNDRED-FIFTY WORKERS AND CRAFTSMEN IN OUR TWO PLANTS WHICH ARE LOCATED IN LAURENS COUNTY, GEORGIA. WE INDIRECTLY EMPLOY MANY MORE PERSONNEL - JOBBERS AND INSTALLERS - WHOSE HOMES RANGE FROM TEXAS TO NEW ENGLAND. OUR PRODUCTS GRACE RESIDENCES RANGING FROM COSTLY, SINGLE-UNIT DWELLINGS, TO MID-INCOME HOUSING, TO URBAN RENEWAL-FEDERALLY SUBSIDIZED PROJECTS. WE ALSO BUILD CABINETS FOR INSTALLATION IN UNITED STATES MILITARY BARRACKS, FOR DOMESTIC AS WELL AS EUROPEAN BASES.

NO MATTER WHAT LEVEL OF SOCIETY ULTIMATELY ENJOYS THE BEAUTY AND UTILITY OF OUR CABINETS, EACH CONSUMER CAN BE ASSURED THAT THEY ARE CONSTRUCTED TO MAINTAIN LASTING BEAUTY AND DURABILITY; AS THEY ARE CONSTRUCTED OF THE FINEST RED OAK AND YELLOW POPLAR THAT NATURE HAS TO OFFER - TREES GROWN IN THE DURABLE, RESILIENT AND PRODUCTIVE FORESTS OF THE SOUTHERN APPALACHIAN HIGHLANDS.

THE LUMBER WE CRAFT INTO OUR PRODUCTS IS LOGGED PRINCIPALLY IN WESTERN NORTH CAROLINA, NORTHERN GEORGIA AND EASTERN TENNESSEE. THE SUPERIORITY OF UPLAND OAKS OF THIS PROVINCE - WHEN COMPARED TO THEIR LOWLAND COUNTERPARTS - IS KNOWN WORLDWIDE. THE PERCENTAGE OF OUR LUMBER PURCHASES WHICH ORIGINATE ON THE NATIONAL FORESTS VARIES, IN ANY GIVEN MONTH, BETWEEN FIFTEEN AND ONE-HUNDRED PERCENT, AND AVERAGES MORE THAN THIRTY-FIVE PERCENT. THERE ARE SOME PEOPLE WHO ARE PRESENT AT THIS HEARING TODAY WHO WOULD HAVE THE PUBLIC BELIEVE THAT THIS UNITED STATES FOREST SERVICE TIMBER IS "INSIGNIFICANT" TO LOCAL, REGIONAL AND NATIONAL ECONOMIES.

MY PURPOSE THIS MORNING IS TO EMPHATICALLY STATE: THOSE PEOPLE ARE WRONG.

THE PRODUCTION CABINET BUSINESS IS VERY COMPETITIVE. TO BE SUCCESSFUL IN THIS INDUSTRY ONE MUST BEGIN WITH THE FINEST OF RAW MATERIALS, BLEND THESE WITH EXPERTISE AND CRAFT BORN OF YEARS OF WOODWORKING EXPERIENCE, AND MAKE CERTAIN THAT EVERY STEP IN THE PROCESS TAKES PLACE WITH PRECISION AND DETAILED ACCURACY. OUR PRODUCTS ARE SOLD AT COMPETITIVE BID TO EXACTING BUYERS WHOSE VOCABULARIES DO NOT CONTAIN WORDS SUCH AS "VARIANCE" OR "TOLERANCE". OUR BUSINESS, OUR EMPLOYEES, AND OUR CLIENTELE DEPEND UPON THE NATURALLY SUPERIOR RESOURCES OF THE NATIONAL FORESTS TO SUSTAIN OUR POSITION IN THE MARKET PLACE.

AS TO THE QUESTION OF "BELOW COST" TIMBER SALES, THERE ARE TWO DISTINCTLY DIFFERENT TYPES OF THESE.

THE FIRST TYPE, WHICH WE WILL CALL A "GENUINE BELOW COST SALE", IS THE RESULT OF ONE OR MORE UNITS OF A PROJECT SALE NOT RECOVERING THE COSTS OF ENTRY ROADS, ENVIRONMENTAL MITIGATIONS, AND OTHER ADMINISTRATIVE EXPENDITURES. THIS IS THE TRUE AND PROPERLY DEFINED DEFICIT SALE. THESE LOW QUALITY FOREST SEGMENTS RESULTED FROM THE PRACTICE OF HIGHGRADING FOREST STANDS, BY PRIVATE LAND OWNERS - BEFORE ACQUISITION BY THE U. S FOREST SERVICE. THE RESIDUAL TREES THAT ARE LEFT AFTER HISTORICAL HIGHGRADING PRACTICES "FAIL TO RESPOND AFTER RELEASE"; THE LATTER PHASE IS USED BY FORESTERS TO DESCRIBE UNDERSTORY FOREST STANDS THAT HAVE BEEN SUPPRESSED BY SHADE AND SPATIAL CROWDING FOR SUCH LONG PERIODS OF TIME THAT THEY NO LONGER HAVE THE CAPACITY TO RESPOND WITH NORMAL GROWTH AND VIGOR EVEN THOUGH MAXIMUM SUNLIGHT BECOMES AVAILABLE THROUGH OVERSTORY REMOVAL. OUR LUMBER SUPPLIER TELLS US THAT FOREST STANDS SUCH AS THESE MAY CONTAIN MANY OAKS AND HICKORIES LESS THAN SEVEN INCHES IN DIAMETER AND YET ONE-HUNDRED YEARS OLD, WITH NO HOPE OF IMPROVEMENT. THEY OFFER LITTLE VALUE FOR MANKIND AND EVEN LESS FOR WILDLIFE.

THESE DEFICIT SALES ARE DISLIKED BY LOGGERS AND FOREST MANAGERS ALIKE, SINCE THEY AFFORD FEW SAWLOGS BUT MUCH LOW-VALUE PULPWOOD FOR THE FORMER, AND NO CURRENT NET INCOME FOR THE LATTER. THIS TYPE SALE IS JUSTIFIED, NONETHELESS, BY FUTURE-ORIENTED SILVACULTURISTS, FORESTERS AND ECONOMISTS, BOTH IN, AND OUTSIDE U. S. FOREST MANAGEMENT. IN A WORD - THEY ARE THERAPEUTIC: THE CLASSIC "PAY ME NOW OR PAY ME LATER" DILEMMA.

THE SECOND TYPE "TIMBER LOSS" DEVELOPS AS FOLLOWS:
AT THE END OF EACH FISCAL YEAR, THE FOREST SERVICE TALLIES UP THE COSTS OF ROAD CONSTRUCTION AND MAINTENANCE, HIKING TRAIL UPKEEP, CAMPING MANAGEMENT, WILDERNESS MANAGEMENT, FISH AND WILDLIFE MANAGEMENT, FIRE SUPPRESSION, LEGAL AND ADMINISTRATIVE LOSSES TRIGGERED BY TIMBER SALE OBSTRUCTIONISTS, WILD AND/OR SCENIC AREA MANAGEMENT, RARE OR ENDANGERED SPECIES PROTECTION, THERAPEUTIC FOREST TREATMENT, HYDROLOGICAL AND OTHER SCIENTIFIC RESEARCH, PLUS COUNTLESS OTHER MANAGERIAL, TECHNOLOGICAL AND ADMINISTRATIVE EXPENSES.

FROM THE EXPENSES PARTIALLY ENUMERATED ABOVE, TIMBER SALE RECEIPTS ARE COMPARED AND A "PROFIT OR LOSS" IS CALCULATED. WHY DO I ONLY USE THE PHRASE "TIMBER SALE RECEIPTS" AS A DIRECT MEANS OF OFFSETTING ALL MANAGEMENT REQUIREMENTS? SIMPLY BECAUSE, OF ALL SOUTHERN APPALACHIAN FOREST BENEFITS, ONLY TIMBER SALES GENERATE SIGNIFICANT, DIRECT REVENUE TO THE U.S. FOREST SERVICE BUDGET.

HOW THEN, CAN AN INFORMED, CANDID MIND REFER TO THIS MULTIPLE USE AGENCY'S GROSS BUDGETARY REVERSALS AS "TIMBER LOSSES"? PUT SOMEWHAT DIFFERENTLY, AND QUOTING DR. FREDERICK CUBBAGE FROM HIS WRITTEN DRAFT COMMENTS TO THE AUTHORS OF MOUNTAIN TREASURES AT RISK:
"HOW MUCH DOES [CONGRESSIONALLY DESIGNATED] WILDERNESS MANAGEMENT COST? IT WOULD BE NICE TO KNOW FOR COMPARISONS".

I HAVE SEVERAL OTHER QUESTIONS FOR YOUR THOUGHTFUL CONSIDERATION:

1) MY COMPANY GENERATED $15,000,000.00 IN FOB-PLANT SALES IN 1988. WE ECONOMICALLY SUSTAINED, ON A DIRECT AND IMMEDIATE LEVEL, OVER 200 GREATER LAURENS COUNTY HOUSEHOLDS. WE ADDITIONALLY REQUIRED THE LABOR OF FIFTY NATIONWIDE CABINET INSTALLERS PER DAY; AN ENTIRE FLEET OF CROSS-COUNTRY SEMIS; THE SERVICES OF TWO BANKS AND THE PRODUCTS OF OVER FIFTY COMMERCIAL VENDORS. THE RESOURCE NUCLEUS OF THIS COMPANY WAS 1,500,000 BOARD FEET OF SOLID SOUTHERN APPALACHIAN LUMBER. MY QUESTION ON THIS POINT IS TWO-FOLD: (A)- BY WHAT ARCANE AND TENUOUS ARGUMENT DOES ONE CONSIDER THIS NUCLEUS OF RENEWABLE RESOURCE "INSIGNIFICANT"? AND (B)- JUST WHERE ON THE LEDGER OF U. S. FOREST SERVICE DOES THE REAL, EXTENDED VALUE OF THIS RESOURCE CONTRIBUTION APPEAR?

2) - CONTRARY TO POPULAR OPINION, UNIVERSITY OF TENNESSEE WILDLIFE BIOLOGISTS OFFER TWENTY YEARS OF RESEARCH REVEALING THAT USFS BLACK BEAR POPULATIONS ARE SUPERIOR IN SIZE, WEIGHT, AND REPRODUCTIVE CAPACITY WHEN COMPARED TO BEAR POPULATIONS OF THE CONTIGUOUS BUT NON-TIMBER PRODUCING FORESTS OF THE GREAT SMOKY MOUNTAIN NATIONAL PARK. WHY IS THIS REGIONAL VALUE NOT QUANTIFIED AND ADDED TO THE "PLUS SIDE" OF THE USFS LEDGER? INDEED, WHY DOES THE MEDIA NOT EVEN REPORT SUCH SCIENTIFIC INFORMATION?

3) - WHY ARE THE SOUTHERN APPALACHIAN TIMBER WORKERS AND THEIR DEPENDENT RESOURCE CONVERTERS, SUCH AS MY FIRM AND HUNDREDS OF OTHERS LIKE ME, JUDGED BY THE BLACK AND WHITE ABSOLUTES OF ADAM SMITH; YET, RECREATION ECONOMICS ARE CRADLED IN THE SOFT LUXURY OF KEYNESIAN

THOUGHT?

4) - WHY ARE THE 90,000,000 ACRES OF CONGRESSIONALLY-MANDATED WILDERNESS EXEMPTED FROM ANY RATIONAL ECONOMIC ANALYSIS?

I END THIS ADDRESS WITH A STATEMENT OF THANKS FOR THE OPPORTUNITY OF PRESENTING THESE COMMENTS FOR THE RECORD.

I CLOSE WITH A QUOTATION FROM HENRY W. SHAW, KNOWN BY THE PEN NAME OF JOSH BILLINGS; WHICH, ALTHOUGH UNEQUAL TO THE TASK OF PROVIDING ALL THE ANSWERS, NONETHELESS WELL DELINEATES AND DEFINES THE FOUNTAINHEAD OF THE CONTROVERSIES ADDRESSED BY THIS PANEL. JOSH WOULD HAVE US REMEMBER THAT,

"THE TROUBLE WITH PEOPLE IS NOT THAT THEY DON'T KNOW - BUT THAT THEY KNOW SO MUCH THAT AIN'T SO".

T&S Hardwoods, Inc.
P.O. BOX 1233 • MILLEDGEVILLE, GEORGIA 31061 • TELEPHONE: (912) 453-3492
FAX: (912) 453-9002

L.N. THOMPSON, JR.
PRESIDENT
L.N. THOMPSON, III,
VICE PRESIDENT
R.E. ROBINSON
CORP. SECRETARY

November 3, 1989

The Honorable Wyche Fowler, Jr.
Room 204 Russell Building
United States Senate
Washington, D.C. 20510

Dear Senator Fowler:

The hearing which you chaired in Atlanta on October 30 was very interesting to me to say the least. The issues that we discussed are timely and of considerable interest to the forest products industry in Georgia and nationwide. I'm sure they will receive further study and debate in the future.

Through the Region 8 Forest Service Timber Purchasers Council, we want to continue to participate in this debate, and I want to thank you for the opportunity to testify. As I indicated, T & S Hardwoods is 40% dependent upon national forest timber. We, therefore, are heavily impacted by policies affecting the Forest Service and its land management responsibilities.

I was particularly interested in your views concerning farm subsidies and the related farm surpluses in both the United States and Western Europe. As I stated in response to your questions in this area, I have serious reservations about subsidies of any kind.

Consequently, I personally believe that the Forest Service should strive to make money on all of its resource management activities and the services it provides to the public. However, I'm not sure a goal is politically realistic or desireable in light of the environmental restrictions and multiple-use mandate imposed upon the Agency by Congress.

Regarding below cost timber sales, I would like to expand upon my response to your questions on subsidies in light of the Forest Service's multiple-use mandate. I believe there is a real question as to who is being subsidized, and the answer is not the timber industry.

As a member of Congress, you and your colleagues have mandated that the Forest Service provide a wide range of services from the national forests. The southern Appalachian national forests, in particular, face a disproportionately high demand for recreation. The Forest Service provides these recreation opportunities essentially for free. But the recreation subsidy doesn't end there. Because of the national forests' scenic beauty--created at public expense by the Forest Service from cut-over lands--the Forest Service is far more subject to criticism for conducting forest management activities.

In trying to respond to this criticism and meet different environmental and multiple use constraints on these lands, the costs associated with timber management and road construction increase very significantly. The staff costs, alone, to employ consulting specialists such as wildlife biologists, landscape architects, archaeologists, and recreation specialists contribute heavily to the creation of "below cost" timber sales.

By contrast, when we at T & S Hardwoods buy privately-owned timber in the western North Carolina mountains, we also do our best to operate in an environmentally sound manner. We seed all the logging and skidding roads promptly with appropriate grasses, construct waterbars, and leave the properties in good shape. Even with these activities, we find that we can accomplish the timber harvesting at considerably less cost, leaving a higher residual stumpage for the landowner. And these lands also serve as aesthetic and recreational resources for the landowner and his friends and neighbors. There is no doubt in my mind that all Forest Service timber sales can be profitable, but that is not the direction the Agency has been given, and net public benefits might suffer.

Moreover, there are many other benefits that accrue to the local communities, county governments and the regional economy from Forest Service timber sales. In western North Carolina, the roughly sixteen counties in the mountain area will receive slightly less than one million dollars during the current year from the twenty-five percent fund. You know these counties and the importance of any revenue source for rural school budgets. For the past twelve months, we have paid at our Sylva, North Carolina operation $1,710,000 in wages for our employees only. Our jobs are full time jobs and pay average wages of slightly over $19,000 per year, per employee.

I would like to encourage you to visit the southern Appalachian forests as your schedule will permit and observe first hand road building, timber harvesting and the related forest products manufacturing in the area. These are issues that you must see, as well as read about, to really understand and appreciate. We would be most happy to have you visit our operations at Sylva or Milledgeville, Georgia, and any of our logging operations on Forest Service or private land.

I personally appreciate your keen interest in this subject, and I hope we might continue a dialogue in the future. I also thank you for the kindly way in which I was treated during the hearing.

Sincerely,

L. N. Thompson, Jr.

L. N. Thompson, Jr.
President

LNT/eks

Senator **Fowler**. All right, let's have our two private foresters here today and then we will come to you, Mr. Kirby.

Next is Mr. Robert W. Pollard, Jr., senior vice president of Pollard Lumber Company in Appling, Georgia.

Welcome, Mr. Pollard.

STATEMENT OF ROBERT W. POLLARD, JR., VICE PRESIDENT, POLLARD LUMBER CO., INC., APPLING, GA

Mr. **Pollard**. Thank you.

INTRODUCTION

My name is Robert W. Pollard, Jr. I am the vice president of Pollard Lumber Company, Incorporated in Appling, Georgia and I am also a member of the Southeastern Lumber Manufacturers Association.

TWO ISSUES: ROAD CONSTRUCTION AND THE RED-COCKADED WOODPECKER

I am going to focus my testimony on two issues. First, on the issue of road construction, and, second, the red-cockaded woodpecker.

ROAD CONSTRUCTION

The Southeastern Lumber Manufacturers Association (SLMA) supported the Forest Service road construction budget proposed by the President. We took that position for a number of reasons.

First, we understand that a major motivation behind your road construction amendment was your belief that the Forest Service requires Forest System roads to be overbuilt. We agree——

Senator **Fowler**. Now wait a minute, you are going to have to slow down so I can understand you. You understand as a major motivation behind my amendment was what?

Mr. **Pollard**. Excuse me. Was your belief that the Forest Service requires Forest System roads to be overbuilt.

Senator **Fowler**. Right. That assumption is correct.

Mr. **Pollard**. We agree that the roads constructed in the national forests for the purpose of logging have been designed and constructed to a higher standard than private roads constructed for a similar purpose. However, in some cases, Forest Service roads are underconstructed and are inadequate for logging Forest Service timber sales.

In criticizing the Forest Service, we must remember that the Forest Service has a multiple-use policy. In addition to accessing timber, Forest Service roads provide permanent public access to recreation activities, including the wilderness areas.

The best method of addressing this issue is not through reducing funds available for road construction, but rather through instructing the Forest Service to reevaluate its road construction policies. The Region 8 Forest Service Timber Purchasers Council has recommended that Forest Service roads in region 8 (the South) should be designed to meet local conditions. Conditions of timber sales and the intended use of the roads. If the Forest Service were to adopt this policy, we believe the problem of overdesign and overconstruction would be resolved. Roads should be constructed to meet a need and no more.

Second, we believe that the issue of road construction is a proxy for the real issue of timber harvesting. If road construction funds are cut, then there is obviously less timber accessible for harvesting.

In essence, what preservationists are unable to accomplish through the adoption of wilderness bills, we believe they are trying to accomplish through other means.

Third, several years ago, after a prolonged battle with the Canadian Government, U.S. timber interests working through our government succeeded in reducing the importation of subsidized Canadian lumber into the United States. We believe that if public timber harvesting were significantly reduced because of the elimination of necessary road construction funds, it is the Canadians who will stand to gain again at the expense of the southern forest products industry.

BIODIVERSITY—RED-COCKADED WOODPECKER

Mr. Chairman, the red-cockaded woodpecker has become a major issue in the South. The Forest Service Timber Sale Program in the South has been disrupted by the policy prohibiting clearcutting within three-quarter mile of a red-cockaded woodpecker colony. If continued, this policy, which we believe to be excessive, would have a very serious impact on future timber supplies in the Southeast.

The impact of this policy is beginning to be felt on other lands as well. The most recent action involves a woodland in eastern North Carolina that has been obtained by the Farmers Home Administration through default of a loan. Since the woodland is now owned by the U.S. Government, the U.S. Fish and Wildlife Service has determined that timber harvesting and hunting is prohibited on this property due to the presence of the woodpecker.

ATTACHED LETTER

Attached is a letter from David Harris of J.W. Jones Lumber Company outlining the details of this case. You will note that Mr. Harris states that the Federal regulations will now prohibit any buyer of the property from ever cutting the timber. As conservationists, we are concerned with the protection of the environment and all natural resources, including the red-cockaded woodpecker. However, we believe the Forest Service and Federal judges have gone overboard at the expense of the timber industry.

THE RED-COCKADED WOODPECKER IS NOT THE REAL ISSUE IN THESE POLICY CHANGES

Mr. Chairman, we believe the red-cockaded woodpecker is not the real issue in these policy changes. It is obvious that the real issue is timber harvesting. Andy Stahl, a resource analyst with the Sierra Club Legal Defense Club, has made several references to using wildlife as a surrogate for delaying Federal timber sales. We are convinced that as the preservationists have used the spotted owl to prevent the harvest of timber in the Northwest, they are using the red-cockaded woodpecker to prohibit the harvesting of southern yellow pine timber in the South.

The recent change in red-cockaded woodpecker management policy on national forests came about as the result of threatened litigation by the Sierra Club Legal DeFense Fund, Incorporated. We are disappointed that the Forest Service so rapidly abandoned its national forests management plans in issuing the new policy.

Also, we believe that once a forest plan is adopted, most of which have been in the South, there should be no further opportunity for litigation which would challenge any part of the forest plan. Opportunities for litigation should be available only prior to adoption of the forest plan.

IN SUMMARY

In summary, Mr. Chairman, we believe the primary issue is not Forest Service roads, the red-cockaded woodpecker, or the spotted owl. The issue at hand is whether or not Congress supports the wise use of our renewable forest resources in a multiple-use fashion.

This concludes my statement and I would welcome any questions.

[The prepared statement and exhibit A of Mr. Pollard follow:]

STATEMENT FOR THE RECORD

OF

ROBERT W. POLLARD, JR.

SOUTHEASTERN LUMBER MANUFACTURERS ASSOCIATION

BEFORE THE

SENATE AGRICULTURE SUBCOMMITTEE
ON CONSERVATION AND FORESTRY

OCTOBER 30, 1989

My name is Robert W. Pollard, Jr. I am the Vice President of Pollard Lumber Company, Inc. in Appling, Georgia, and am also a member of the Southeastern Lumber Manufacturers Association (SLMA). SLMA is comprised of 363 small business lumber manufacturers in 13 southern states. Approximately 60 of these members purchase Forest Service timber amounting to more than 200 million board feet in any given year. These 60 member companies employ approximately 4,250 people.

We appreciate the opportunity to testify today and would like to focus our testimony on two issues. First, on the issue of road construction and then on the issue of bio-diversity, which we understand the next panel will discuss in detail.

Mr. Chairman, as you know, SLMA supported the Forest Service road construction budget proposed by the President. We actively sought to restore funds during conference on the Interior Appropriations bill which had been reduced by your amendment adopted on the Senate floor. We took that position for a number of reasons.

First, we understand from discussion with your staff that a major motivation behind your road construction amendment was your belief that the Forest Service requires forest system roads to be over-designed and over-constructed. We agree that

ROADS CONSTRUCTED IN NATIONAL FORESTS FOR THE PURPOSE OF LOGGING HAVE BEEN DESIGNED AND CONSTRUCTED TO A HIGHER STANDARD THAN PRIVATE ROADS CONSTRUCTED FOR A SIMILAR PURPOSE; HOWEVER, IN SOME CASES, FOREST SERVICE ROADS ARE UNDER-CONSTRUCTED AND ARE INADEQUATE FOR LOGGING FOREST SERVICE TIMBER SALES.

IN CRITICIZING THE FOREST SERVICE, WE MUST REMEMBER THAT THE FOREST SERVICE HAS A MULTIPLE-USE POLICY. IN ADDITION TO ACCESSING TIMBER, FOREST SERVICE ROADS PROVIDE PERMANENT PUBLIC ACCESS TO RECREATION SITES AND WILDERNESS AREAS, AND ARE ALSO USED FOR HIKING, HORSEBACK RIDING, AND HUNTING. ALSO, THE FOREST SERVICE HAS ENVIRONMENTAL CONSTRAINTS TO PROTECT SOIL AND WATER THAT ARE NOT LEVIED UPON PRIVATE INDUSTRIES. THIS MANDATES A HIGHER STANDARD OF DESIGN THAN PRIVATE ROADS. STILL, WE BELIEVE THAT IN SOME CASES THE FOREST SERVICE OVER-DESIGNS AND OVER-CONSTRUCTS THESE ROADS.

THE BEST METHOD OF ADDRESSING THIS ISSUE IS NOT THROUGH REDUCING FUNDS AVAILABLE FOR ROAD CONSTRUCTION, BUT RATHER THROUGH INSTRUCTING THE FOREST SERVICE TO REEVALUATE ITS ROAD CONSTRUCTION POLICIES. ON APRIL 20, 1988, THE REGION 8 FOREST SERVICE TIMBER PURCHASERS COUNCIL, WHICH SLMA MANAGED AT THAT TIME, PRESENTED THE FOLLOWING RECOMMENDATION TO REGIONAL FORESTER JACK ALCOCK REGARDING FOREST SERVICE ROADS: "FOREST SERVICE ROADS

IN REGION 8 SHOULD BE DESIGNED TO MEET LOCAL CONDITIONS, CONDITIONS OF TIMBER SALES AND THE INTENDED USE OF THE ROAD." IF THE FOREST SERVICE WOULD ADOPT THIS POLICY ON FOREST SERVICE ROAD CONSTRUCTION, WE BELIEVE THE PROBLEM OF OVER-DESIGN AND OVER-CONSTRUCTION WOULD BE RESOLVED. IF YOU DECIDE TO UNDERTAKE THE EFFORT OF MANDATING THE FOREST SERVICE TO REEVALUATE ITS ROAD CONSTRUCTION POLICIES, SLMA WILL SUPPORT YOU 100%. ROADS SHOULD BE CONSTRUCTED TO MEET A NEED AND NO MORE.

SECOND, WE BELIEVE THAT THE ISSUE OF ROAD CONSTRUCTION IS ALSO A PROXY FOR THE ISSUE OF TIMBER ACCESS. IF ROAD CONSTRUCTION FUNDS ARE CUT, THEN THERE IS OBVIOUSLY LESS TIMBER ACCESSIBLE FOR HARVESTING. THE FOREST SERVICE HAS PROVIDED DRAMATIC DATA ON THE IMPACT ON SALES LEVELS THAT WOULD RESULT FROM A MAJOR ROAD FUND REDUCTION IN REGION 8 (THE SOUTH). IN ESSENCE, WHAT PRESERVATIONISTS ARE UNABLE TO ACCOMPLISH THROUGH THE ADOPTION OF WILDERNESS BILLS, WE BELIEVE THEY ARE TRYING TO ACCOMPLISH THROUGH OTHER MEANS. WE BELIEVE THERE ARE AMPLE PUBLIC STATEMENTS BY PRESERVATIONISTS TO SUPPORT OUR POSITION. THE FUTURE OF MANY MILLS AND THE ECONOMIC LIVELIHOOD OF THOUSANDS OF PEOPLE THROUGHOUT THE SOUTH ARE DEPENDENT ON A RESPONSIBLE LEVEL OF ROAD CONSTRUCTION AND AN ADEQUATE LEVEL OF PUBLIC TIMBER SALES.

THIRD, SEVERAL YEARS AGO, AFTER A PROLONGED BATTLE WITH THE CANADIAN GOVERNMENT, U.S. TIMBER INTERESTS WORKING THROUGH OUR GOVERNMENT SUCCEEDED IN REDUCING THE IMPORTATION OF SUBSIDIZED CANADIAN LUMBER INTO THE UNITED STATES. WE BELIEVE THAT IF PUBLIC TIMBER HARVESTING WERE SIGNIFICANTLY REDUCED BECAUSE OF THE ELIMINATION OF NECESSARY ROAD CONSTRUCTION FUNDS, IT IS THE CANADIANS WHO WILL STAND TO GAIN FROM SUCH AN ACTION AND NOT THE SOUTHERN FOREST PRODUCTS INDUSTRY.

MR. CHAIRMAN, ON THE ISSUE OF BIO-DIVERSITY, TIMBERLAND OWNERS, LUMBER MANUFACTURERS, AND HUNTERS THROUGHOUT THE SOUTH ARE WAITING FOR THE SHOE TO DROP. WE BELIEVE IT IS ONLY A MATTER OF TIME BEFORE THE PROBLEM CREATED BY THE RED-COCKADED WOODPECKER (RCW) BECOMES A MAJOR ISSUE IN THE SOUTH. THE FOREST SERVICE TIMBER SALE PROGRAM IN THE SOUTH HAS ALREADY BEEN DISRUPTED BY THE MARCH 27, 1989 POLICY PROHIBITING CLEARCUTTING WITHIN 3/4 MILE OF AN RCW COLONY. THIS POLICY, WHICH WE BELIEVE TO BE EXCESSIVE, HAS THUS FAR AFFECTED 66 SALES ON THE SOUTHERN NATIONAL FORESTS (EXCLUDING TEXAS, WHOSE TIMBER SALE PROGRAM HAS BEEN IMPACTED BY A JUNE 17, 1988 COURT ORDER PROHIBITING ANY EVEN-AGED MANAGEMENT WITHIN 3/4 MILE OF AN RCW COLONY), AND HAS RESULTED IN A LOSS OF 17.1 MILLION BOARD FEET FROM THE FY 1989 TIMBER SALE PROGRAM. TO KEEP THE LOSSES TO A MINIMUM, THE FOREST SERVICE FOUND REPLACEMENT VOLUME FROM TIMBER THAT WOULD HAVE

BEEN HARVESTED IN THE FUTURE. THIS IS IN EFFECT ROBBING THE FUTURE TO PAY THE PRESENT; THEREFORE, IT IS INEVITABLE THAT THE REGION 8 TIMBER SALE PROGRAM WILL EVENTUALLY EXPERIENCE A SERIOUS SHORTFALL IF THE MARCH 27 POLICY CONTINUES INDEFINITELY.

THE IMPACT OF THE FOREST SERVICE'S RCW POLICY IS BEGINNING TO BE FELT ON OTHER LANDS AS WELL. THE MOST RECENT ACTION INVOLVES AN 82 ACRE PARCEL OF WOODLAND IN EASTERN NORTH CAROLINA THAT HAS BEEN OBTAINED BY THE FARMERS HOME ADMINISTRATION THROUGH DEFAULT OF A LOAN TO THE PROPERTY OWNER. SINCE THE WOODLAND IS NOW OWNED BY THE U.S. GOVERNMENT, THE U.S. FISH AND WILDLIFE SERVICE HAS DETERMINED THAT TIMBER HARVESTING AND HUNTING IS PROHIBITED ON THIS PROPERTY DUE TO THE PRESENCE OF THE RCW. EXHIBIT A IS A LETTER FROM DAVID HARRIS OF J. W. JONES LUMBER COMPANY OUTLINING THE DETAILS OF THIS CASE. YOU WILL NOTE THAT MR. HARRIS STATES THAT THE FEDERAL REGULATIONS WILL NOW PROHIBIT ANY BUYER OF THE PROPERTY FROM EVER CUTTING THE TIMBER. IF THE CURRENT TREND CONTINUES, WE BELIEVE IT IS A MATTER OF TIME BEFORE PRIVATE LANDOWNERS WILL BE PROHIBITED FROM HARVESTING TIMBER ON THEIR WOODLANDS WHERE RCW COLONIES ARE PRESENT. AS CONSERVATIONISTS, WE ARE CONCERNED WITH THE PROTECTION OF THE ENVIRONMENT AND ALL NATURAL RESOURCES, INCLUDING THE RED-COCKADED WOODPECKER; HOWEVER, WE BELIEVE THE FOREST SERVICE AND FEDERAL JUDGES HAVE GONE OVERBOARD AT THE EXPENSE OF THE TIMBER INDUSTRY.

Mr. Chairman, we are concerned that the RCW is not the real issue in these policy changes. It is obvious that access to timber is indeed the real issue. During a speech at the Sixth Annual Western Public Interest Law Conference on March 5, 1988 in Eugene, Oregon, Andy Stahl, a resource analyst with the Sierra Club Legal Defense Club in Seattle, Washington, made several references to using wildlife as a "surrogate" for delaying federal timber sales. In reference to this, Mr. Stahl stated, "Until legislation is adopted which protects these forests, we need at least one surrogate, if you will, that will provide protection for the forests. A surrogate must have three qualities to be a good surrogate. . . . Well, as the strategy for protecting old-growth matured, it appeared that wildlife would offer the most fruitful hunting grounds for a surrogate that meets the three criteria." We are convinced that as the preservationists have used the Spotted Owl to prevent the harvest of timber in the Northwest, they are using the Red-cockaded Woodpecker to prohibit the harvesting of southern yellow pine timber in the South.

The recent change in RCW management policy on national forests came about as the result of threatened litigation by the Sierra Club Legal Defense Fund, Inc. We are disappointed that the Forest Service so rapidly abandoned its national forest management plans in issuing the new policy. We believe this indicates a need for improvement in national forest management planning by the Forest Service. We ask that you work with the Forest Service, as part of the authorization and appropriation processes, to insure this improvement is made. Also, we believe that once a forest plan is adopted, most of which have been in the South, there should be no further opportunity for litigation which would challenge any part of the forest plan. In other words, once a forest plan is adopted with appropriate public comment, litigation should not be an available tool that can be used to delay or stop individual timber sales. Opportunities for litigation should be available only prior to adoption of the forest plan.

In summary, Mr. Chairman, we believe the primary issue is not Forest Service roads, the Red-cockaded Woodpecker, or the Spotted Owl. The issue at hand is whether or not Congress supports the wise use of our renewable forest resources in a multiple-use fashion.

This concludes my statement, and I would welcome any questions.

EXHIBIT A

J. W. JONES LUMBER COMPANY, Inc.
KILN DRIED PINE - BAND SAWN HARDWOODS
Plant and Office Located on U. S. 17 and 158 North of
Elizabeth City, N. C. 27909

September 26, 1989

Mr. John C. Milliner, Jr., Executive Vice President
SLMA
P. O. Box 1788
Forest Park, GA 30051

Dear John:

This letter is to provide you with information that has potential to effect every lumber manufacturer throughout the area of our Association. I have already discussed this issue with Tom Cator, and he recommended that a letter be provided to you.

During the week of September 18 our company forester made inquiry on a parcel of land in the neighboring county that had been advertised for sale by the Farmer's Home Administration. The property had been obtained by FmHA through default of a loan to the property owner. The parcel consists of 82.2 acres of woodland and 52 acres of cleared farmland. The inquiry by our forester found that the woodland could not be cut because of federal regulations and a conservation easement. He was advised that the timber could never be cut. Further inquiry through the local FmHA offices confirmed what the forester had been told. Once property is taken by the FmHA it is then placed in the federal inventory of property and land. Once placed in this inventory the property is subject to regulations by several other federal agencies. Included in those agencies are the U.S. Wildlife Service. The Wildlife Service can then make a survey of any property and if it discovers any endangered species can issue a conservation easement that prohibits harvesting of timber. A survey was made of this tract and the Redheaded Cockaded Woodpecker was found to inhabit the wooded portion of the tract. The U.S. Wildlife Service regulations will now prohibit any buyer of the property from ever cutting the timber. It also will require that any hunting permits for the wooded tract be obtained from the U.S. Wildlife Service. This federal regulation will now effectively prevent 82 acres of woodland from ever being harvested.

OCT - 2 1989

The FmHA representatives advised me that the regulations now required for federally owned property have presented them with a serious problem in sale of foreclosed land. In similar circumstances to the one described above, the value of the land decreases because of the restrictions that any purchaser would face in use of the property. In several cases the property has not been sold and remains a part of federally owned land. Interested individuals in buying such property are quick to realize that taxes will be paid on woodland that cannot be cut or controlled in any way by the owner.

Mr. Wilson Jones and I have discussed the potential for such provisions as now apply to foreclosed property by FmHA being applied to other federal agencies. There would also appear to be the potential for spread of federal regulations on timberland to include any property on which federal funds are used to either assist with a loan or secure a loan even from a private financial institution. Tom Cator also agreed that the potential for such extension of federal regulations is a very real possibility. The continued extension of federal regulations for endangered species has potential for serious adverse impact on the lumber industry nationwide. Already problems are being experienced from the endangered species of woodpecker, owl and frog. We believe that it is important for the membership of SLMA to be made aware of the increasing federal regulation over land. The increased regulation often occurs without publicity and through means that prevent advanced notice and organized opposition. This also makes the effort for increased contributions to the SLMA-PAC even more important.

If you would like any further information, please do not hesitate to contact me. A copy of this letter is being provided to Mr. Tom Cator for his files, and a copy is also being provided to the American Forest Resource Alliance. We would like to respectfully suggest that some type of article be placed in a SLMA Newsletter so that membership can be made aware of this potentially serious issue. Thank you for your time and consideration. With best wishes and personal regards.

Sincerely yours,

David Harris

David Harris
Business Manager

cc: Mr. Tom Cator
Mr. Wilson Jones, Jr.
American Forest Resource Alliance

Senator FOWLER. Thank you, Mr. Pollard, for your fine statement.

Mr. Peter Kirby, southeast regional director for The Wilderness Society.

STATEMENT OF PETER KIRBY, SOUTHEAST REGIONAL DIRECTOR, THE WILDERNESS SOCIETY, ATLANTA, GA

CONCERNS AND THANKS

Mr. KIRBY. Mr. Fowler, The Wilderness Society appreciates this opportunity to share with you our deep concerns over expanded timber sales-below cost and destructive new road construction on our national forests.

The conservation community in Georgia and around the country also wishes to thank you for your leadership last July in winning a Senate floor vote to reduce funding for Forest Service road construction.

CONSTRUCTION OF NEW, PERMANENT LOGGING ROADS CAUSES SEVERE ENVIRONMENTAL DAMAGE TO OUR NATIONAL FORESTS

The construction of new, permanent logging roads causes severe environmental damage to our national forests. These fresh bulldozed roads scar scenic mountains, silt up streams, intrude into remote wildlife habitat, pave over hiking trails, disrupt backcountry recreation and destroy potential wilderness.

The Forest Service already has over 360,000 miles of its own roads in our national forests with plans to build another 90,000 miles of new roads in the future. This will result in a total of about 450,000 miles, enough to go to the Moon and back. The cost as well as the mileage will also be astronomical—about $4 billion in construction alone, as Jill Lancelot mentioned. In addition, the Forest Service does plan to increase logging in forests that lose money in timber sales.

CASE STUDY

A case study of these abuses can be found, unfortunately, here in our backyard national forests in the Southern Appalachians. Encompassing mountainous portions, found in Georgia, Tennessee, North and South Carolina and Virginia, these forests are treasured for their biological diversity, visual beauty, diverse recreation opportunities, clear waters, and wilderness.

However, Forest Service plans and management for the forests put these "Mountain Treasures at Risk—The Future of the Southern Appalachian National Forests" as we have entitled a recent report.[2] Recently completed plans for these forests provide for much higher timber cutting, about a doubling of timber cutting in their first decade over the average annual levels sold in the previous decade, 1977-1986.

To accomplish this increase, the Forest Service projects the construction of another 3,200 miles of new roads in the Southern Appalachians to add to the existing 5,000 miles. This would be enough to stretch from Atlanta to Tokyo.

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[2] The report, "Mountain Treasures At Risk—The Future of the Southern Appalachian National Forests," by Laura E. Jackson for The Wilderness Society is retained in the subcommittee file.

The timber programs on these Southern Appalachian forests are all below cost, as the Chief mentioned earlier. Using the findings of the Forest Service, we total the losses at over $5 million in 1987. Moreover, with more accurate accounting of cost and revenues, the total annual losses would really be double or triple this $5 million. It makes zero economic or environmental sense to continue these huge losses from timber sales below cost. Federal timber from these forests is not a significant supply in any of the Southeast States. The Chattahoochee National Forest, for example, Mr. Chairman, provides less than 1 percent of the wood produced in Georgia.

Rather than the Forest Service spending millions of dollars to build thousands of miles of new logging roads in the Southern Appalachians, it would be much more productive for Congress to expand the resources of the Forest Service, to work with State foresters, like Mr. Mixon, whom I saw in the audience earlier, to help increase environmentally sound timber production on the region's extensive private lands. This change in emphasis in the Forest Service budget will yield far more timber production on balance.

These national forests are much more valuable for recreation, clean water, wildlife habitat, scenic beauty and wilderness than sources of timber. Yet the Forest Service plans will destroy the wild land character of some of our few remaining wilderness areas in the Southern Appalachians. The plans zone about 60 percent of the scarce potential wilderness in these mountains for timber production, despite findings by the Forest Service about a shortage of wilderness in the future.

Over strong public protest, the Forest Service is also scarring the outstanding scenic beauty of these Appalachian forests with clearcuts and logging roads. Under its plans, the Forest Service expressly allows much of this steep and beautiful land to be dominated visually by logging and road construction.

Sadly, Mr. Fowler, the Chattahoochee Forest ranks among the worst in these threats to wild lands, and is among the worst in its inadequate protection of scenic beauty. It is not a model of forest stewardship, as the Chief said earlier.

The great biological diversity of these forests is also put at risk from new road construction into remote wildlife habitats and from the loss of mature hardwoods from increased cutting.

Before closing, Mr. Fowler, let me show you a few recent pictures that illustrate these abuses. The first picture shows fresh new road construction on the Nantahala National Forest. Note the deep cuts into the hillside and the large amounts of exposed soil. The second picture shows that completed logging road, permanently scarring the rugged mountainside. The third picture shows a road on the Chattahoochee National Forest only about an hour from here near Dahlonega that has actually eroded away to bedrock. Note in the next picture that my assistant, Lisa Huff, can completely fit into the gulleys on the road. [Laughter.]

Senator FOWLER. The audience doesn't know what we are laughing at. I think Mr. Alcock ought to. Go ahead.

Mr. KIRBY. The next picture shows the trout stream, Cochrans Creek, near Amicalola Falls, where the eroded silt from the road ends up.

The final two, Mr. Chairman, are aerials of new roads and clearcuts on the Appalachian portion of the Sumter National Forest in South Carolina. They demonstrate the ugliness allowed by the Forest Service for areas zoned for what they call maximum modification.

Mr. Fowler, could these pictures be made a part of the record?

Senator FOWLER. They will be.[3]

Mr. KIRBY. In conclusion, Mr. Chairman, we need your help to correct these abuses. We recommend that Congress and the Forest Service phase out below-cost timber sales. The Forest Service should eliminate logging on lands where revenues do not recover the government's cost of timber management, sales administration, and logging road construction.

Second, end the construction of new permanent timber roads. Logging should be limited to existing roaded national forest lands.

And, third, restructure the Forest Service budget to provide greater public benefits. The present dominance of timber and roads in the forests' budgets must be reduced. Necessary increases must be made for recreation and trails, soil and water, wildlife and fish, wilderness management, and land acquisition. The Forest Service State and Private Forestry Program should also be strengthened to provide greater assistance to private landowners in this region.

Thank you.

[The prepared statement and attachments of Mr. Kirby follow:]

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[3] The photographs of Mr. Kirby are retained in the subcommittee file.

THE WILDERNESS SOCIETY

SOUTHEAST REGION

STATEMENT OF PETER KIRBY, SOUTHEAST REGIONAL DIRECTOR OF THE WILDERNESS SOCIETY ON NATIONAL FOREST TIMBER SALES-BELOW-COST AND FOREST ROAD CONSTRUCTION BEFORE THE SENATE AGRICULTURE COMMITTEE'S SUBCOMMITTEE ON CONSERVATION AND FORESTRY, OCTOBER 30, 1989

ATLANTA, GEORGIA

Mr. Chairman, The Wilderness Society, with its over 330,000 members nationwide, appreciates this opportunity to share with the Committee our deep concerns over expanded timber sales-below cost and destructive new road construction on our national forests. Thank you also for holding the hearing in Atlanta to hear firsthand about the damage from these abuses to our beautiful and popular national forests in the Southern Appalachians.

Thanks as well, Senator Fowler, for your leadership last July in winning a Senate floor vote on your amendment to reduce funding for Forest Service road construction by $65 million. The conservation community in Georgia and around the country urges you to continue your efforts to seek protection for our treasured national forests through reductions in road construction funding.

The construction of new, permanent logging roads causes more environmental damage than virtually any other element of the timber program on our national forests. These fresh bulldozed roads scar scenic mountains, silt up streams, intrude into remote wildlife habitat, pave over hiking trails, disrupt backcountry recreation and destroy potential wilderness. The national forest road program runs up a high cost to the taxpayer as well as to the environment. In the last five years alone, the Forest Service has spent almost a billion dollars further expanding its already vast network of roads.

High road costs into steep and remote areas to access low-quality timber contribute to the pattern of timber sales-below-cost, where the federal government fails to recover its costs of making timber available for sale with the receipts it receives. In FY 1988, timber sales on 74 of the 120 national forest units were "below-cost", according to the new Forest Service

1819 PEACHTREE RD., NE — SUITE 714, ATLANTA, GA 30309
(404) 355-1783

accounting system.

Conservation groups and fiscal conservatives alike are convinced it's time to blow the whistle on the destructive and wasteful Forest Service road construction program. Deep reductions in the budget for new, permanent logging road construction are needed in order to bring economic sense to the Forest Service's timber program and to prevent further damage to unique and irreplacable natural values on our national forests.

In my time this morning let me first highlight problems from the national perspective and then focus in more detail on the need to eliminate new road construction and timber sales-below-cost on our nearby Southern Appalachian national forests.

The Forest Service currently manages over 360,000 miles of roads on the national forests, (not even counting additional state, county, town and other federal roads that traverse these lands.) This is the largest road system managed by any single agency in the world. We recognize that many existing roads serve useful functions by providing access for recreation, timber sales and management. The key question for Congress and the public today is how much larger this already vast road network needs to be.

The Forest Service projects the construction of another 87,000 miles of new roads by 2040, according to their forest plans. Adding to the existing miles, it would result in a total system of about 447,000 miles. This is enough to go to the moon and back - a Forest Service space program! The cost as well as the mileage will also be astronomical - about $4 billion for the new roads alone, by agency estimates of an average cost of $45,000 per mile. Taxpayers will also pay the dollar costs of mitigating the effects of road construction from erosion and fish and wildlife habitat disruption and pay the dollar costs of continued maintenance. The public will also bear the environmental costs of scarred scenery, lost backcountry recreation, and foregone wilderness.

As noted, the two-thirds of the national forests that are below-cost in timber sales tend to be steep lands with remote areas and often low-quality timber. Road construction on these forests tends to be expensive, environmentally damaging and provides access to additional money-losing acres. According to the forest plans, the Forest Service timber targets for these forests call for a 35% increase in logging in the first decade and about a doubling by the fifth decade. Cumulative taxpayer losses in the first decade alone would exceed $2 billion - and would climb in future decades.

"Roads to red ink" - that's an apt title for the Forest Service combined plan of extensive new road construction and expanded timber sales-below-cost. It's time to end construction of new permanent logging roads, both those built with appropriated dollars and those purchaser built. The Forest Service must recognize that its major road system is complete. It should limit its work to the reconstruction and maintenance of existing roads. Further new roading wastes taxpayer dollars and despoils the environment.

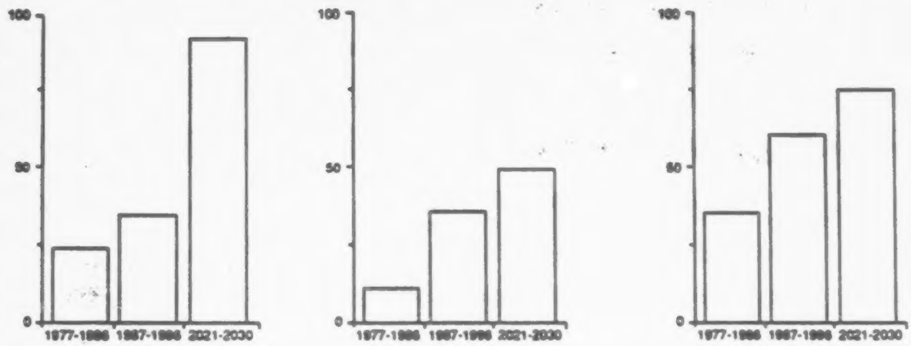
A case study of abusive road construction and expanded timber sales-below-cost can be found, unfortunately, here in our backyard national forests in the Southern Appalachians. Six national forests - the Chattahoochee, Cherokee, Jefferson, Nantahala, Pisgah and part of the Sumter - together with the Great Smoky Mountains National Park comprise more than 3.5 million acres of the Southern Appalachians. Encompassing mountainous portions of Georgia, North and South Carolina, Tennessee and Virginia, these forests are treasured for their biological diversity, visual beauty, diverse recreation opportunities, clear waters, and wilderness. These mountain attractions draw economic growth and prosperity to the region and contribute to the quality of life we enjoy.

However, Forest Service plans and management for the forests put these "Mountain Treasures at Risk," as we have entitled a recent report on the future of the Southern Appalachian National Forests. (A copy is being submitted for the Committee's use). Recently completed plans for these forests provide for much higher timber cutting, about a doubling, in their first decade, 1987-1996, over the average annual levels sold in the previous decade, 1977-1986. By 2020, the plans project more than a tripling of timber cutting over the preplan sale levels (See Table 1).

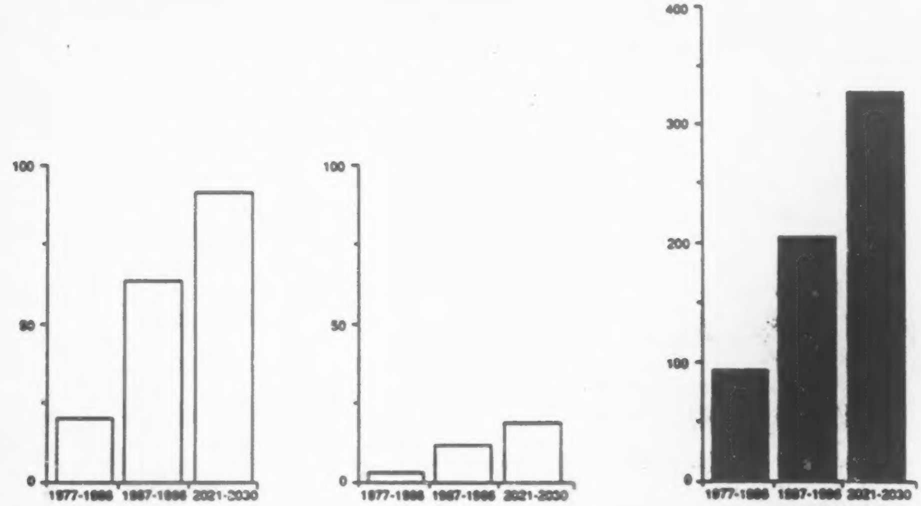
To accomplish these expansions, the Forest Service zones 61% of the forests overall as suitable for timber production. Over three-quarters, 77%, of the Chattahoochee, is opened for timber production and road construction, including many popular recreation areas, potential wildernesses, and valuable watersheds. The precise figures are as follows:

Table 1. Average Annual Timber Sold on Southern Appalachian National Forests, 1977-86, and Annual Allowable Sale Quantity, 1987-2030.

(millions of board feet)



Cherokee   Jefferson   Nantahala-Pisgah



Chattahoochee   · Sumter   TOTAL REGION

Sources: USDA Forest Service, Land and Resource Management Plans, 1985-1987; de Steiguer, et. al., *Draft Report: Southern Appalachian Timber Study*, 1988; Pers. Comm. Don Bolinger, Andrew Pickens District Ranger, 1988; Pers. Comm. Jack Kennedy, Chattahoochee-Oconee National Forests Planner, 1988.

Table 2. Total Forest Acreage and Amount Suitable for Timber Production on the Southern Appalachian National Forests.

Forest	Total Forest Acreage	Acreage Suitable for Timber Production	Percent of total Forest Acreage
Chattahoochee	741,400	570,653	77.0
Cherokee	623,565	372,536	59.7
Jefferson	690,254	339,600	49.2
Nantahala-Pisgah	1,015,330	568,170	56.0
Sumter	76,444	58,095	76.0
Total Region	3,146,993	1,909,054	60.7

Sources: USDA Forest Service, Land and Resource Management Plans, 1985-87; Pers. Comm. Don Bolinger, Andrew Pickens District Ranger, 1988; Pers. Comm. Jack Kennedy, Chattahoochee-Oconee National Forests Planner, 1988.

These national forests already contain about 5,000 miles of permanent Forest Service road (not even counting additional state, county, town and other federal roads.) Nonetheless, the plans project the construction of another 3,200 miles of new road by the year 2030. The resulting total of 8,200 miles would stretch from Atlanta to Tokoyo. The financial cost alone for these new roads would be staggering. At $45,000 per mile, the cost in current dollars would total about $150 million not even to mention the damage to other resources.

Among other problems, the high cost of new road construction drains funds away from other neglected multiple uses and results in a Forest Service budget heavily tilted towards development. During the last two fiscal years with available data, 1987 and 1988, here are the total miles of new timber road construction and the total expenditures, compared to the appropriations for soils and water, recreation and fish and wildlife:

	New Timber Roads	Cost	Soils and Water	Recreation	Fish and Wildlife
Chattahoochee-Oconee	39	3	.5	2	.5
Cherokee	45	3	.3	2	.4
G. Washington	49.5	3	.9	2	.5
Jefferson	37	3.5	.6	2	.5
North Carolina	76	7	.6	3	.9
Totals (money in millions of constant 1989 dollars)	246.5	19.5	2.9	11	2.8

As the figures indicate, the amount spent in FY 1987 and 1988 on new timber roads alone ($19.5 million) exceeds the amount spent on three other major multiple uses combined ($16.7 million). Remember too that new road construction is only one element of the timber program; other major and expensive costs include timber road reconstruction, timber road maintenance, timber sales administration, brush disposal and reforestation. All told, timber and roads funding dwarfs the other multiple uses.

As a result of this severe budget imbalance, the national forests are not producing the greatest benefits for all the forest users in the Southeast. For example, there is a multimillion dollar backlog of needed hiking trail maintenance and construction projects on these forests. Many miles of trail are not even maintained annually, and funds needed for repairs after storms are often lacking, even as backcountry recreation grows in popularity in the Southern Appalachians.

One of the greatest benefits of the national forests is for recreation. People flock to the mountains, all year-round, for backcountry hiking, camping, hunting and fishing, scenic driving and nature study. In the planning process the Forest Service found an ample supply of what's called "roaded natural" type recreation, based on the large existing road system but found a limited supply of "wilderness" type recreation, based on scarce wildlands. As shown in

Table 3, there's little need for new roads for recreation, as current supply for "roaded natural" opportunities far exceeds demand, even to the year 2030. Conversely, demand for wilderness" recreation will match supply as soon as the year 2000 and will greatly exceed it by the year 2030.

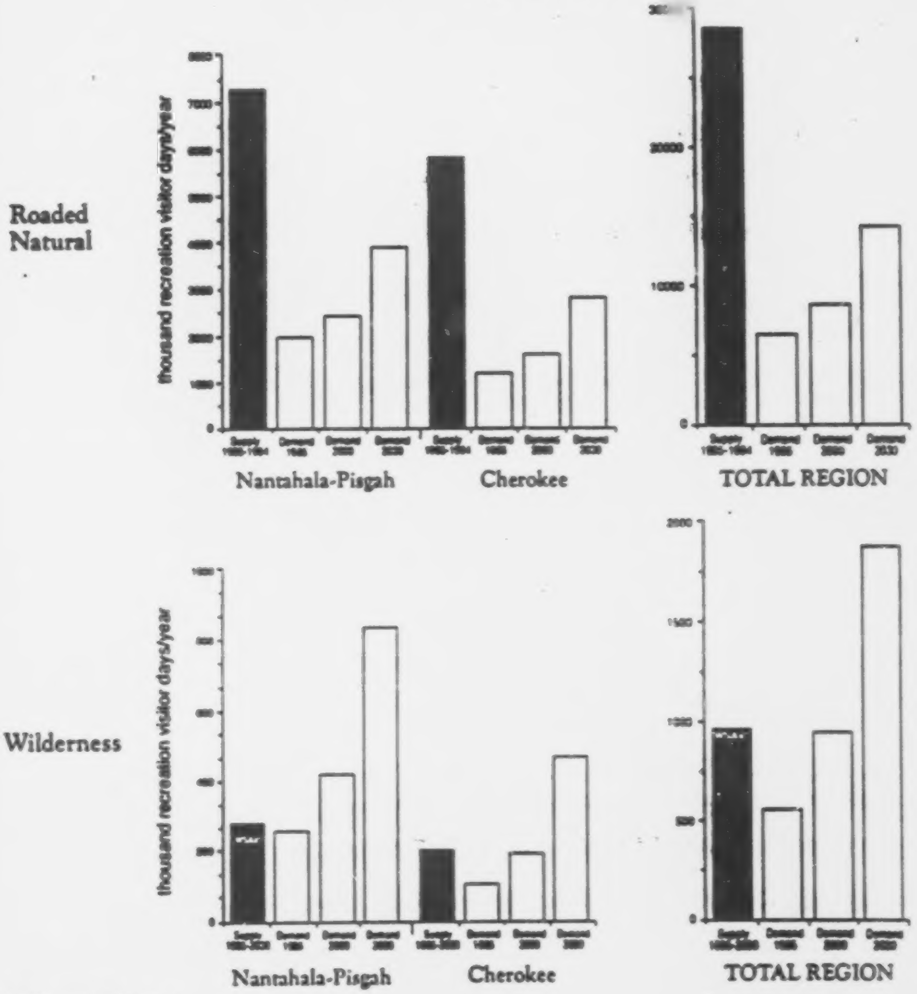
For the Southern Region as a whole, the national forests have one of the smallest wildland bases of any region. At the same time that the agency is seeking to shrink this very small wildland base, the population of the Southern states is growing rapidly with correspondingly greater demands for outdoor recreation.

Based on these findings about public needs one would expect the Forest Service to carefully refrain from building roads into the small portion of remaining wildland on the national forests. To the contrary, however, the Forest Service opens more than 60% of the acreage of potential wilderness to roading and logging. Unfortunately, on the Chattahoochee National Forest, with the highest amount of potential wilderness, 142,000 acres, the Forest Service also opens the largest amount by far, 103,000 acres, to roading and cutting that would disqualify areas from future wilderness review.

Many of the areas on the Chattahoochee forest opened to new road construction and timber sales-below-cost are among the most beautiful and popular places in North Georgia. Indeed, conservation groups have proposed a number of areas for wilderness that are now threatened by Forest Service development. These potential wildernesses include the well-known Blood Mountain area near Vogel State Park, Mountaintown next to the Cohutta Wilderness, the Chattahoochee River area near Helen, needed extensions to the Tray Mountain Wilderness near Lake Burton and the Overflow area near Clayton, among others. These areas feature fine hiking trails, famous scenic vistas, prime black bear habitat, rare and endangered species, outstanding trout streams and diverse backcountry recreation opportunities. It simply makes no sense for the Forest Service to plan subsidized logging and road construction that will destroy some of the few remaining wildlands in our state.

As the Forest Service has gradually come to admit, the forests in the Southern Appalachians are "below-cost" in their timber programs. Indeed, in the Chief's decision last month on our appeal of the Nantahala-Pisgah plan, he explicitly found this largest forest unit of the Southern Appalachians to be below cost. The agency's TSPIRS analysis, for all its

Table 3. Planned Supply and Estimated Demand for Wilderness vs. Roaded Recreation in the Southern Appalachian National Forests, Selected Forests and Total Region.



*Wilderness Study Areas

Sources: USDA Forest Service, Land and Resource Management Plans, 1985-1987; USDA Forest Service, Regional Guide for the South, 1984; Pers. Comm. Don Bolinger, Andrew Pickens District Ranger, 1988; Pers. Comm. Steve Hendricks, Cherokee National Forest Recreation Specialist, 1988.

flaws, has made this clear beyond contradiction. Here are the losses from Report One for FY 1988:

Chattahoochee-Oconee	-.5 million
Cherokee	-1.0 million
North Carolina	-2.5 million
Jefferson	-1.4 million
George Washington	-1.5 million
Related overhead costs from Regional and Washington, D.C. offices	-2.2 million
Total	-9.1 million

In fact, the Forest Service significantly understates the losses from these forests. In Georgia and North Carolina it adds in the positive revenues from the flat, roaded, piney forests in the Piedmont and Coastal plain to mask the losses from the Appalachian forests. For example, if calculated separately from the Oconee, as it should be, the analysis for the Chattahoochee would show a loss around $1.2 million in FY 1988.

The major accounting flaw is that the Forest Service uses wildly unrealistic periods for amortizing or spreading out over time the capital costs of roads and reforestation. In its FY 1988 report, the Forest Service used a period of 217 years on the Cherokee, 202 years on the Chattahoochee-Oconee and 193 years on the George Washington, to name a few. This has the result of excluding as costs all but a tiny fraction of the high annual costs of roads and reforestation. If these costs were properly accounted for, with a road amortization period of twenty five years, for example, the total losses from sales-below-cost would probably be about double.

Why are the Southern Appalachian forests all below-cost in this timber program? To begin with, the Forest Service uses a pricing system - called transaction evidence appraisal - that bears no relation to its costs in making timber available. The Forest Service could eliminate sales-below-cost tomorrow if it simply charged minimum prices that recover costs. At present, the difference between the costs to the Forest Service and the prices charged to the purchasers represents a subsidy to the timber industry that cuts off of national forest land.

On these mountain forests in particular, much of the land is in fact physically and economically unsuitable for timber production. A full forty percent of the hardwood growing stock in the Appalachian national forests is located further than 1500 feet from a road, thus requiring high access costs. In addition, over 70% of the hardwood growing stock on these forests is located on slopes greater than 31% slope class. (These categories overlap; many lands are both remote and steep.) On these steep slopes, the Forest Service normally requires the use of cable logging, a highly expensive and elaborate system that drives down the prices for timber and reduces competitive bidding. In short, these are steep and remote forests. It makes much more economic as well as ecological sense to emphasize watershed protection, old-growth wildlife habitat, visual beauty and recreation than intensive timber production and roadbuilding.

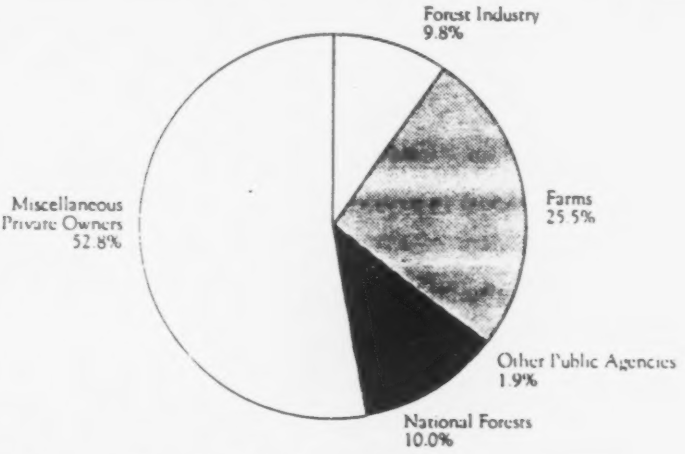
Furthermore, prices have declined sharply on these forests in the last ten years, as a result of reduced competition and soft demand. Between 1977 - 1986, prices paid for all species of national forest timber dropped. Here are examples of annual price changes: Chattahoochee, poplar, -10%; Cherokee, red oak, -9%; Nantahala-Pisgah, hardwood pulpwood, -17%; Sumter, mixed hardwood, -12% and Jefferson, mixed oak, -9%. In the round of recent forest plans the Forest Service assumed zero price changes for hardwoods and actual increases for softwoods. Clearly, this data about price declines for all species critically undermines the key assumptions in the plans about base timber prices and price trends that help determine the amount of timber to be sold and the acres to be logged on each forest. However, the agency has not sought to reduce the amount of timber sold and in fact on some forests is trying to offer the maximum amount allowed by their plans.

Economic common sense dictates that with huge losses and declining prices for national forest timber in the Southern Appalachians, the Forest Service should sell less rather than more of the public's forest. Moreover, the Forest Service has essentially ignored the Congressional direction in the National Forest Management Act that uneconomic timber production should be curbed.

Federal timber from these below-cost forests is not a significant supply in any of the Southeast states. The Chattahoochee provides less than 1% of the wood produced in Georgia; the Nantahala-Pisgah contributes less than 2% of North Carolina's supply, and similar very small proportions come from the Appalachian national forests of Virginia, Tennessee and South Carolina. While forestry is a leading industry in all of these states - in fact, Georgia's biggest business - the national forests are not an important source of logs. To the contrary, the national forests are much more valuable for recreation, clean water, wildlife habitat, scenic beauty and wilderness than as sources of timber.

Even in the immediate supply area of the Southern Appalachians, a recent Forest Service report shows that only 10% of the wood used comes from the national forests, as shown below in **Table 4**. Furthermore, the study discloses that growth exceeds removals on all ownerships in the Southern Appalachian area, including lands owned by farmers, forest industry and other private owners.

Table 4. Distribution of Annual Timber Removals in the Southern Appalachian Timber Supply Region by Ownership Class, 1980-1986.



Source: de Steiguer, et. al., *Southern Appalachian Timber Study*, 1989

There would be little economic hardship and much environmental and fiscal advantage to reducing harvest levels in the Southern Appalachian national forests by eliminating timber sales-below-cost and ending new road construction. As noted, only ten percent of the wood used locally comes from the national forests. Private land in the area is not as steep or as remote as public land and is hence more suitable for timber production. Hardwood growing stock inventories on these lands are also increasing, largely offsetting any shift to nonforest uses on these ownerships.

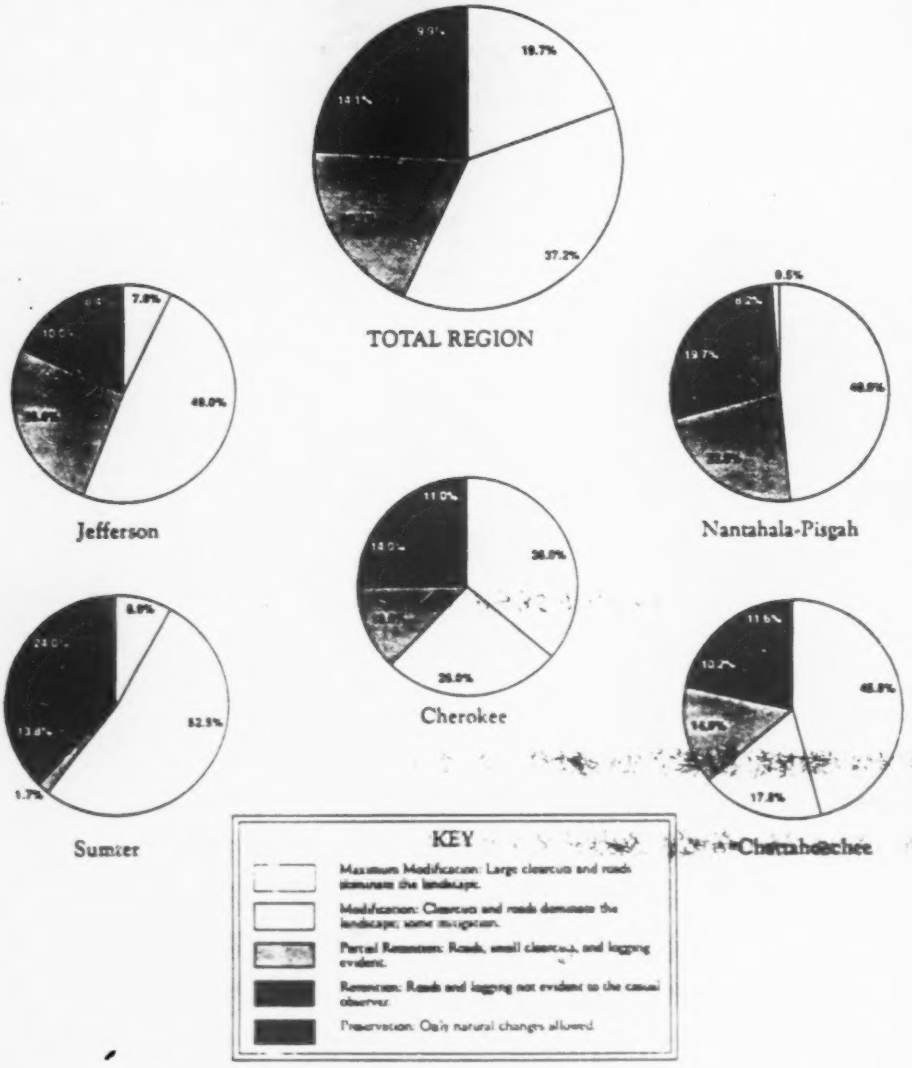
In fact, less cutting on these national forests will yield greater economic benefits overall as a more attractive forest environment will enhance the rapidly-growing recreation, retirement and tourism industries. In the Nantahala-Pisgah plan, for example, the Forest Service disclosed that an alternative with less timber cutting than the selected plan actually generated more employment and income.

There would generally also be little effect on federal payments to the counties by reducing timber sales-below-cost in the Southern Appalachians. Under existing law, counties annually are to receive either 75 cents per acre of federal land (Payment in Lieu of Taxes, or PILT) or 25 percent of gross forest receipts, whichever is higher. Southern Appalachian national forests have relatively small gross timber revenues, particularly compared to the coastal forests in the Southeast. Hence, for most Southern Appalachian counties, like in North Georgia, the higher amount they are to receive is the flat per-acre payment. Moreover, a major economic asset for these counties is the attractiveness of the national forests, as noted earlier, that draws recreation, tourism, retirement, light industry and other sources of jobs and income. Current Forest Service management is threatening this attractiveness.

A very tangible example of the damage done by the high cutting levels in the plans is the degradation to the forests' visual beauty. In the plans the Forest Service sets "Visual Quality Objectives" for all lands to determine how much beauty will be maintained, under categories like preservation or retention, or how much ugliness will be allowed, under categories like modification and maximum modification. As shown in Table 5, throughout the six forests, the agency is allowing nearly 60% of these scenic forests to be dominated visually by logging and road construction.

Unfortunately the Chattahoochee ranks as one of the worst offenders with almost half the land, 46%, zoned with the objective of "maximum modification." With flawed objectives like these throughout the Southern Appalachians it's no wonder that agency clearcutting and roads have sparked strong citizen protests, ranging from resolutions of opposition to cutting close to the Blue Ridge Parkway, a major tourist attraction, to a petition with 16,000 signatures from local folks in western North Carolina calling for an end to indiscriminate clearcutting.

Table 5. Planned Visual Quality Objectives for the Southern Appalachian National Forests, 1985-1994.



Source: USDA Forest Service. Land and Resource Management Plans, 1985-87.

Finally, increased sales-below-cost and new road construction is doing severe damage to the biological diversity of the region. Acclaimed as one of the richest centers for biological diversity in the country, the forests of the Southern Appalachians support an extraordinary variety of tree species, plant communities, wildlife habitats and types of animals. As private lands in the region are developed, the federal forests increasingly offer the only opportunities to provide large tracts of old-growth wildlife habitat free from human disturbance. Thus, the rich biological diversity of the region would benefit from a Forest Service policy of preserving as much land from logging and roading as possible, and where timbering is done, managing on extended rotations with minimal disturbance.

To the contrary, the Forest Service has set out to increase early succession habitat, primarily through clearcutting, and to penetrate remote, roadless areas with permanent logging roads. Moreover, under the planned 80-year rotations, logged forests in the Southern Appalachians will not reach the rich habitat complexity that develops with old-growth. New road construction also adds further risks to the survival of the black bear, a species in great need of security as its habitat is increasingly limited to federal forests. In short, the Forest Service timber-driven approach to wildlife is the exact opposite goal for biological diversity from what is needed in the region. It's also the exact opposite from what Congress directed with its NFMA requirement for biological diversity, namely that the national forests should provide habitat that is diminishing in the United States.

Mr. Chairman, the conservation community supports your efforts to shift funding from national forest road construction to the Forest Service's State and Private Forestry Program. Rather than the Forest Service spending millions and millions of dollars to build thousands of miles of new logging roads in the Southern Appalachians, it makes much more sense for Congress to expand the resources of the Forest Service to work with the states to help increase environmentally-sound timber production on the region's extensive private lands. This change in emphasis in the Forest Service's budget will yield more timber production on balance, better safeguard the special non-timber values of the national forests and meet with greater public support.

Before concluding with recommendations, Mr. Chairman, let me refer you to a few supporting attachments. The first is a Constitution editorial entitled "Save the Forests, Ax the Game Plan," that is evidence of the public dissatisfaction with these forest plans. Next is a Journal-Constitution article about the effort to reduce road funding; interestingly, a timber operator on the Chattahoochee believes himself the Forest Service could get by on a smaller road budget by better using existing roads. Also attached are some recent pictures of destructive road construction on the Nantahala National Forest near the Smokies. They were taken by retired Forest Service forester Walton Smith near his home in Franklin, North Carolina on the Little Laurel timber sale.

To correct the problems examined by this Committee, The Wilderness Society recommends that the Forest Service and Congress take the following actions:

1. **Phase out below-cost timber sales.** The Forest Service should eliminate logging on lands where revenues do not recover the government's cost of timber management, sales administration, and logging road construction. The Forest Service must also reform its timber pricing system so that it receives fair market value with cost recovery as a minimum requirement.

2. **End the construction of new permanent timber roads.** Road construction causes the greatest environmental damage of any Forest Service activity. Logging should be limited to existing roaded national forest lands.

3. **Restructure the Forest Service budget to provide greater public benefits.** The present and planned dominance of timber and roads in the forests' budgets must be reduced. Necessary increases must be made for recreation and trails, soil and water, wildlife and fish, wilderness management, and land acquisition. The Forest Service State and Private Forestry Program should also be strengthened.

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PAGE 22A, SATURDAY, FEBRUARY 18, 1989

Save the Forests, Ax the Game Plan

Most Georgians are alert these days to the dangers of overdevelopment on private mountain tracts. Ugly strip shopping centers gouged into hillsides and condos perched atop once-majestic peaks pose well-known threats to our scenery and environment. But much of the Southern Appalachian region faces a different threat from a source that is less notorious: the U.S. Forest Service. Over 10 years, the government hopes to sharply increase — some say double — its timber harvests in six Southeastern national forests. This is a puzzling, destructive idea.

In a recent report on the future of the Southern Appalachian national forests, the Wilderness Society explained why. For one thing, increased timbering eventually will mean several thousand miles of new roads through the forests. This will constrict the habitat of black bears and other animals. In addition, timbering and roads will promote soil erosion, siltation of streams and the danger of landslides. And it will deface some spectacular scenery.

The program — which envisions broad use of the clear-cutting technique — will be a sure-fire money-loser for the government. The timber is not of top-rate commercial quality, and the demand for it is slight. If sawmills and other small businesses profit by the plan, the fast-growing tourism and recreational industries could be hurt.

Things are clearly out of whack. Just look at figures from the Jefferson National Forest in Virginia. The Forest Service devotes 31 percent of its budget there to timbering, but timbering accounts for just 3 percent of forest revenues. Recreation gets 32 percent of the Jefferson budget, but brings in 73 percent of its benefits.

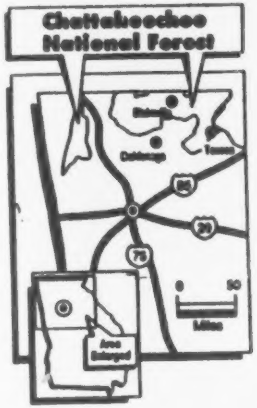
Similar figures are unavailable for North Georgia's Chattahoochee National Forest. We do know, though, that the Forest Service has designated 45.8 percent of the Chattahoochee as acceptable for large clear-cuts and roads. Why such a vast chunk in an area that enjoys a strong demand for recreational opportunities?

There are several theories. Some folks believe the ill-advised push for timbering is the work of Reagan administration zealots who never much liked the notion of public land that is off-limits to private developers. Others think the Forest Service is merely pursuing a comfortable old routine as it blithely ignores new economic opportunities throughout much of Appalachia.

U.S. Sen. Wyche Fowler (D-Ga.), head of the Subcommittee on Conservation and Forestry, says he is disturbed by the Wilderness Society report, and he promises hearings on the issue. That is a heartening development. From all appearances, the Forest Service plans add up to a terrible program, one that is laden with liabilities but surprisingly light on benefits.

The Atlanta Journal □ THE ATLANTA CONSTITUTION

SUNDAY, SEPTEMBER 3, 1989



Fowler Trying to Cut Federal Funds for Logging Roads

By John Harmon
Staff Writer

SUCHES, Ga. — The roar of a diesel engine shatters the woodsy silence as a bulldozer moves earth for a 6,100-foot-long dirt road that stops in the heart of the Chattahoochee National Forest.

Soon, mature hardwoods will be felled and the logs hauled across this single lane contoured along a steep slope. About half the lumber will go into loading pallets; the rest will be of a finer grade and become flooring and furniture.

The U.S. Forest Service will pay for the road. The expense, coupled with the administrative cost of preparing the tract for sale to a private logging company, will cost the federal government more than it receives for the timber. Last year, the Chattahoochee National Forest lost about $1.2 million on its timber sales program, by its own account.

> 'What Senator Fowler has done is attack the most environmental destruction and biggest single item in the Forest Service budget. In doing so, he has built a coalition of environmentalists and fiscal conservatives.'
>
> — Peter C. Kirby
> Southeast regional director of the Wilderness Society

The Forest Service plans to build 20 miles of road a year over the next 50 years to open up about three-fourths of the 750,000-acre Chattahoochee for logging. Since 1975, more than 400 miles of gravel and dirt roads have been cut in the rumpled mountains of North Georgia. The system now totals about 1,250 miles.

But environmentalists and a growing number of congressmen contend the federal government is subsidizing a program that harms the environment, not only in Georgia but throughout America's 155 national forests. They say the agency is overbuilding its road system and already has enough roads to harvest timber for the next decade or more.

Road construction flushes silt into streams, harms trout, displaces habitat for the secretive black bear and allows the Forest Service to slowly whittle away at large blocks of some of North Georgia's most scenic old-growth forest, critics charge.

Siding with the environmentalists, Sen. Wyche Fowler (D-Ga.) has emerged as a leading congressional critic of the Forest Service. As chairman of the Subcommittee on Conservation and Forestry, Mr. Fowler has expressed concern over increased road construction and logging in the national forests and has called for hearings on the issue this fall.

In July, Mr. Fowler sponsored a measure that calls for a $85 million or 30 percent reduction in the agency's road construction budget. If it survives this month's Senate-House budget conference committee, the Fowler amendment could lead to significant reductions of road building and logging in

LEGISLATION Continued on C9

SUN., SEPTEMBER 3, 1989 The Atlanta Journal AND CONSTITUTION

Legislation Would Cut Road Building And Logging in Chattahoochee Forest

From Page C1

mountainous forests such as the Chattahoochee.

"What Senator Fowler has done is attack the most environmental destruction and biggest single item in the Forest Service budget," said Peter C. Kirby of Atlanta, Southeast regional director of the Wilderness Society. "In doing so, he has built a coalition of environmentalists and fiscal conservatives."

To increase productivity on private lands, Mr. Fowler has pushed for passage of tax incentives. His recent measure to cut the forest road budget restored $10 million to promote forestry on private lands and $30 million to other wildlife and conservation programs.

"What the senator is saying is that we need to be looking more to the private sector for our timber and take some of the pressure off our national forests," said Robert Redding, a Fowler aide on forestry and farm issues.

In the South, much of the environmental controversy of the past decade has swirled around the forests in the mountains of Georgia, Tennessee, North Carolina and Virginia. Together they form the largest block of publicly owned lands east of the Rocky Mountains and harbor broadleaf and pine forests that are the most biologically diverse forests in the United States.

Those are also the forests where much of the road construction occurs in the Forest Service's southern region, an administrative area that runs from Texas to Virginia. Due in part to the road projects, all six of the Appalachian forests lose money on their timber programs.

The piney forests of the South's flat lands are already heavily roaded and return money to the U.S. Treasury for timber.

While Forest Service officials say the Fowler amendment would cause a logging reduction of at least 18 percent in all the South's forests, it appears obvious to both environmentalists and timber advocates that much greater reductions of road construction and associated logging will occur in the mountains.

"We couldn't operate without the Forest Service," said Wayne A. Cruse, who with his brother Clyde operates one of the largest sawmills in Georgia's mountains just outside Morganton. "I don't see what's wrong with the government spending money to provide jobs."

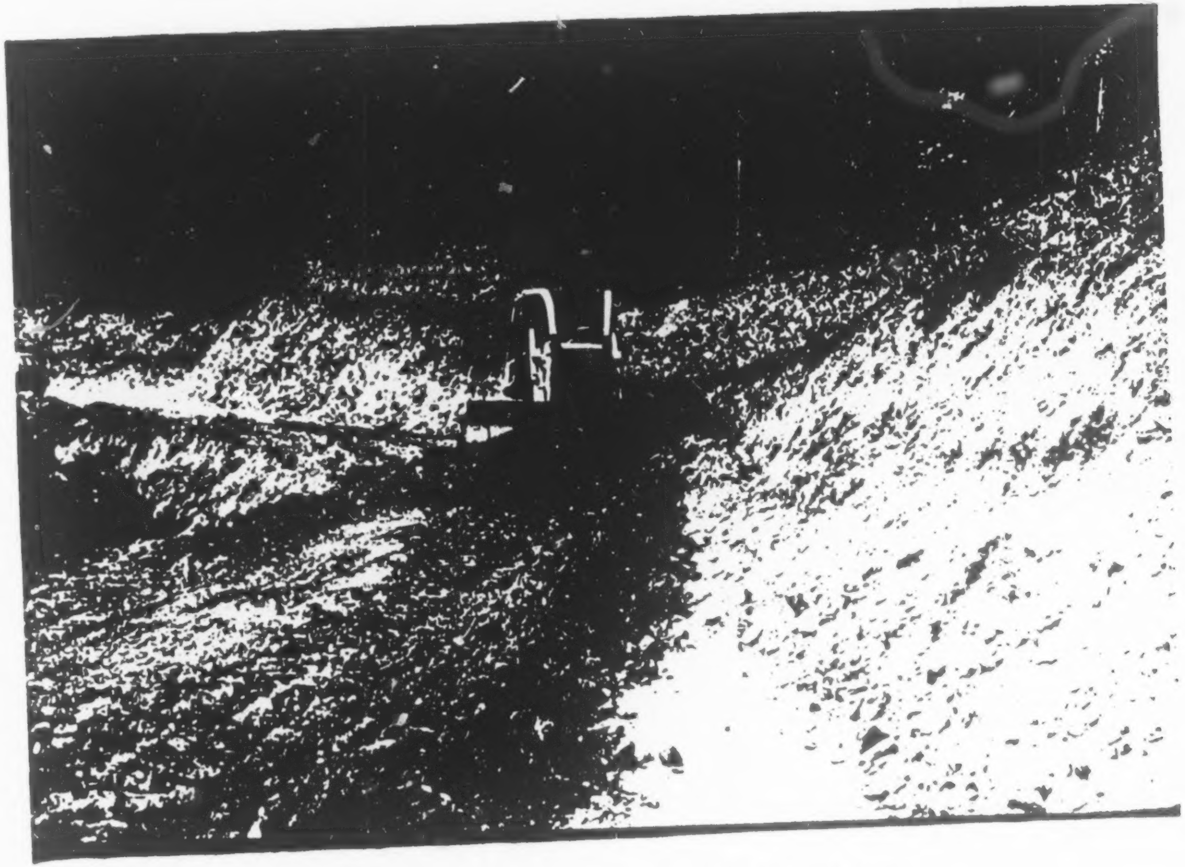
The Forest Service says about 350 full-time jobs are provided in North Georgia each year by logging of the Chattahoochee. The Cruse brothers employ 25.

Mr. Cruse believes the agency could get by on a smaller road budget without reducing timber cutting. In many areas, he said, less expensive temporary roads would be sufficient. He also said the government could make better use of its existing road system.

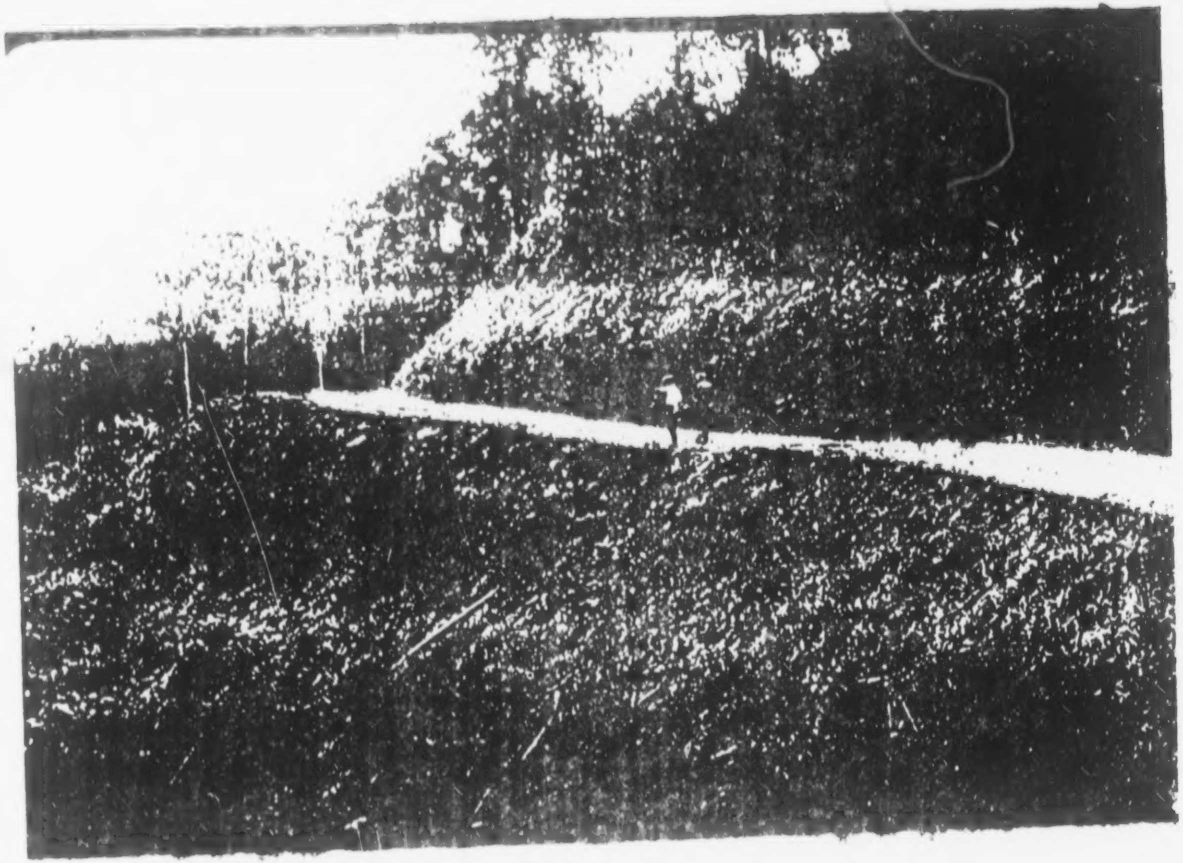
But foresters answer that without new roads they must either reduce timber yields or risk environmental damage by overcutting in the areas already roaded.

"We spent a lot of time developing management plans for all our forests that allow for timber production without doing damage to the resource," said Marvin Meier, deputy regional forester for resources. "So in deciding where we are going to cut road construction, we have to look at all forests."

In the Chattahoochee, environmentalists are hoping the Forest Service will stop building roads into the 75,000 acres in three remote back-country areas, mostly along the high peaks crossed by the Appalachian Trail. The areas, which include Blood Mountain and the headwaters of the Chattahoochee River, were not nominated for wilderness designation by the agency when it completed a study this decade, and they are slated for roading.



Fresh road construction for Little Laurel timber sale on Nantahala National Forest.



Completed road construction for Little Laurel timber sale on Nantahala National Forest.

Senator **Fowler**. Thank you, Mr. Kirby.

Mr. Alcock, I think we ought to give you a second go around here.

[Brief pause.]

Again, for those of you who have come in, this is Mr. Jack Alcock, who is the Regional Forester of the Southern Region of the United States Forest Service.

STATEMENT OF JOHN E. ALCOCK, REGIONAL FORESTER, SOUTHERN REGION, U.S. FOREST SERVICE, ATLANTA, GA, ACCOMPANIED BY JERRY KNAEBEL, REGIONAL ENGINEER, SOUTHERN REGION, ATLANTA, GA, RALPH MUMME, DIRECTOR, TIMBER MANAGEMENT REGION EIGHT, ATLANTA, GA, AND BILL RYBURN, FORESTER, TIMBER MANAGEMENT REGION EIGHT, ATLANTA, GA

Mr. **Alcock**. Thank you, Mr. Chairman.

I will try to be very brief, Mr. Chairman. I would like to submit my full comments to the record as though read.

Senator **Fowler**. Please. It will be included in the record.

INTRODUCTION

Mr. **Alcock**. Thank you. I have with me this morning, to help answer questions, Ralph Mumme, who is our Director of Timber Management for the Forest Service's Southern Region; and Jerry Knaebel, our Regional Engineer for the Southern Region.

Senator **Fowler**. The record will so note that they do not have horns.

Mr. **Alcock**. Thank you.

As you have pointed out earlier this morning, Congress over the years, going back, clear back to 1897, has directed that the national forests be managed for a lot of different uses and we have talked about what most of those uses are.

In our day-to-day planning and in our day-to-day management, we attempt to balance these multiple uses in a way that produces the greatest overall public benefits. We believe the multiple-use concept has served our Nation very well over several decades. As our population grows, we see a demand increase for all goods and services and we see people's attitudes toward public lands changing over time.

The issue of below-cost timber sales and road construction have surfaced in recent years as various demands increase on the national forests. We believe that these topics do lend themselves to open discussion and debate and we welcome that.

BACKGROUND OF THE BELOW-COST SALES ISSUE

The Wilderness Society, the General Accounting Office, the congressional Research Service, and the Forest Service have compared timber sale revenues to timber sale costs and conclude that a significant number of Forest Service timber sales cost more to prepare and administer than they return in direct revenues.

Senator **Fowler**. Is the Chattahoochee one of those?

Mr. **Alcock**. For the last fiscal year, fiscal year 1988, my records show that the Chattahoochee is about $300,000 in the black under the Timber Sales Program.

Senator **Fowler**. And is that, if you will allow me to interrupt you here.

Mr. **Alcock**. Yes, sir.

Senator **Fowler**. For purposes of that definition, are Chattahoochee and Oconee considered together?

Mr. **Alcock**. Yes, sir, they are.

Senator **Fowler**. Now why is that, since Chattahoochee is steep and mountainous and difficult, and the Oconee is flat and pine and already has a lot of roads in it?

Mr. **Alcock**. It is strictly for administrative purposes. We have the same thing in South Carolina where we have the Francis Marion on the coast and the Sumter in the——

Senator **Fowler**. Well, it really doesn't make sense, does it?

Mr. **Alcock**. Well, we could keep separate records, there is no question about that. We don't, simply because it is a bit more convenient, I suppose, to keep them together.

Senator **Fowler**. Well, I guess if nobody has asked you to consider keeping separate records, then I will be the one to do it. I am perfectly willing to hear your arguments, other than administrative ease, since they are both in Georgia. It doesn't seem to me—it seems to me they are apples and oranges, and if we want to get an accurate look at below-cost sales, we ought to keep these separate.

Mr. **Alcock**. They are different, completely different types of property, there is no question. It is strictly for ease of administrative purposes and to hold down the cost of our recordkeeping.

Senator **Fowler**. I will be delighted to offer an amendment any time you want to take some money out of roadbuilding and put it into recordkeeping. [Laughter.]

Please continue.

Mr. **Alcock**. Thank you.

In October 1984, as has already been mentioned here this morning, Congress did direct the Forest Service, and the General Accounting Office (GAO), to develop an expanded timber sales cost accounting system. In response, the Forest Service and GAO have done that task and it is called Timber Sale Program Information Reporting System (TSPIRS), affectionately called TSPIRS.

TSPIRS has been useful in monitoring the costs of forest plan implementation. We are currently using the information from TSPIRS to compare the cost and revenue picture on all national forests. The Forest Service has developed some draft below-cost timber sale program guidelines which we are currently testing on four test forests. Our test forest here in the southern region is the Georgia Washington National Forest up in Virginia. That is our most below-cost national forest and so that should be a good test.

BELOW-COST SALES IN THE SOUTH

Mr. Chairman, it wasn't many years ago that all the national forests, everyone of them, in the South and in the East could be called "below-cost" by generic definition. They were heavily cut over and largely devoid of wildlife and a lot of them were tax delinquent when they were acquired for national forest purposes. Back in 1930, the total revenue from national forest lands in the southern region was less than $1 million.

Now after several decades of scientific forest management, protection from fire, insects and disease, and trespass, these same lands are becoming more and more productive and more and more beautiful. In fiscal year 1988, the revenue received from the national forest resources in just the southern region amounted to over $118 million. We are very proud of that accomplishment.

There is little debate that the investment of scarce public tax dollars should be prudent and not wasteful. Yet, of all the activities permitted in the national forests lands, it is only minerals extraction and timber harvest that produce revenues in excess of costs.

FACTS ABOUT THE SOUTHERN REGION'S TIMBER SALES PROGRAM

Let me share just a few facts about the southern region's Timber Sales Program based on fiscal year 1988 data.

We harvested about 1 billion, 400 million board feet of timber which was valued at about $110 million.

Revenues exceeded operating expenses by over $32 million, of which nearly $21 million were distributed to local governments for road and school programs.

There were other benefits, and I know this is where we have a point in controversy, but there were other benefits in the Timber Sales Program that go beyond pure revenues. We call these "positive net public benefits" and they include things like improved public access to national forests land, more diverse wildlife habitat, reduction in risk of insect and disease epidemics, and so forth. These benefits in fiscal year 1988 we estimated at $98 million.

Senator FOWLER. In the region?

Mr. ALCOCK. Yes, sir, for the whole region.

All national forests in the southern region except the Caribbean National Forest display positive net public benefits from their timber sale programs. The Caribbean National Forest has no timber program.

In the five mountain national forests of the Southern Appalachians, timber revenues were approximately $9.6 million while expenditures were about $14.6 million. That is the $5 million deficit that we have been describing.

However, these same timber sales also generated approximately 2,200 jobs and $54 million in income for the Southern Appalachian area.

NATIONAL FOREST ROADS IN THE SOUTH

Now, I would like to just say a couple of words about roads. We believe that roads are essential for meeting multiple use objectives of National Forest System lands. They are also essential for the vast majority of visitors who come to the national forests. Approximately 98 percent of all recreational use takes place within three-quarters of a mile of a road. For most of my career, Mr. Chairman, the public has demanded and insisted on better access to their national forest land and very good roads, so this has been quite a change, the concern that has been expressed about the road system.

Nearly 80 percent of the permanent road system in the national forests of the southern region is now complete.

Senator **Fowler**. Again, let me just take advantage of your experience, Mr. Alcock, and correct me if I am wrong. On that point, there is no question in your mind that this, what you describe as what used to be the public clamor for more roads, has changed 180 degrees. Do you know of any public clamor of any size whatsoever for building more roads than the existing road network, which I will grant you might have been necessary, for the public's access?

Mr. **Alcock**. I don't think we have made it 180, Mr. Chairman, we may have made about a 120th, but you have heard from folks representing the timber industry this morning that they preferred the high standard roads, or at least roads that are suitable for all products on it. Many of the county governments that we work with still want us to build a high-standard road and in places that connect communities together, so there is still remaining the strong feeling about roads, but I would agree, it is certainly changing.

Senator **Fowler**. Did I interrupt you or were you finished?

Mr. **Alcock**. I just have about two other points, if I might?

Senator **Fowler**. Please.

Mr. **Alcock**. As I said, most of the road system is in place now in the national forest. Most new roads are low standard. They are temporary roads and they are closed following leaving.

I will just close here by saying that we are doing our best to try to listen to all of our public and to adjust our management in ways that are consistent with existing laws and in ways that will provide the best overall public benefits. Thank you.

[The prepared statements of Mr. Alcock follow:]

STATEMENT OF
JOHN E. ALCOCK, REGIONAL FORESTER
SOUTHERN REGION
FOREST SERVICE
UNITED STATES DEPARTMENT OF AGRICULTURE

Before the
Subcommittee on Conservation and Forestry
Committee on Agriculture, Nutrition and Forestry
United States Senate

Concerning Below-Cost Timber Sales and Road Construction in the Southern National Forests

October 30, 1989
Atlanta, Georgia

MR. CHAIRMAN AND MEMBERS OF THE SUBCOMMITTEE:

Thank you for the opportunity to briefly discuss below-cost timber sales and road construction in the southern National Forests. To help answer questions, accompanying me today are: Ralph Mumme, Director of Timber Management for the Forest Service's Southern Region; Bill Ryburn of his staff; and Jerry Knaebel, Regional Engineer for the Southern Region.

Mr. Chairman, starting with the Organic Administration Act of 1897 and followed by the Multiple-Use Sustained-Yield Act of 1960 and the National Forest Management Act of 1976, Congress directed that the National Forests be managed for many uses including wildlife and fisheries, quality water, outdoor recreation, livestock forage, wilderness, and timber.

In our planning and day to day management, we attempt to balance these multiple uses in a way that produces the greatest overall public benefits. It is inherent in multiple use management that the millions of Americans who use the National Forests be willing to share their specific interest with others who also have legitimate interests. The multiple use concept has served our Nation well over several decades. As our population grows, demands for all goods and services increase and people's attitudes toward their National Forests change.

Multiple use management is not without conflict. The issues of below-cost timber sales and road construction have surfaced in recent years as various demands increase on the National Forests. They are sensitive and complex issues to many folks interested in the National Forests and deserve to be thoroughly discussed from all viewpoints.

Before discussing specific information related to the South, I would like to briefly summarize the general background of the below-cost sales issue.

Background of the Below-Cost Sales Issue

In recent years, there have been concerns that a portion of the Forest Service timber sale program loses money. These concerns have been supported by analyses which attempt to define the nature and scope of the below-cost sale situation. The Wilderness Society, the General Accounting Office, the Congressional Research Service, and the Forest Service have compared timber sale revenues to timber sale costs and conclude that a significant number of Forest Service timber sales cost more to prepare and administer than they return in direct cash and revenues.

The issue raises two questions. The first, "How can you tell if a below-cost timber sale program exists on a given forest?" This is an accounting question, and is fundamental to understanding the second question, "What should be done about below-cost timber sales." This is a broader policy question concerning how much timber should be sold from the National Forests.

In 1984, during its evaluation of below-cost sales, the Congressional Research Service found that the information needed to assess the below-cost issue was not available. The basic problem was that the Forest Service reported costs and returns on an annual basis, but the timber sale program is a multi-year program. Our accounting system then was intended to report and monitor budget expenditures, not to evaluate profitablity of the timber sale program.

In October 1984, Congress directed the Forest Service, and the General Accounting Office (GAO), to develop an expanded timber cost accounting system. In response, the Forest Service and GAO started developing the Timber Sale Program Information Reporting System (TSPIRS).

TSPIRS produces three accounts, one for each aspect of the timber sale program:

-- "The Statement of Revenues and Expenses" displays the net return (revenue less expenses) resulting from the timber sale program.

-- "The Employment, Income, and Program Level Account" shows the contribution of the timber sale program to the local economy in terms of employment opportunities created and income produced, plus information on the actual timber sale program accomplishments for the single fiscal year.

-- "The Economic Account" provides an estimate of future benefits and costs associated with the current year's harvest. This account provides information on how the timber sale program affects other resource economic values of future timber management of harvested acres.

Taken together, these three accounts with a supporting narrative provide a comprehensive picture of the financial and economic benefits and costs of managing timber on the National Forests.

TSPIRS has also been useful in monitoring the costs of Forest Plan implementation. We are currently reviewing ways of using this information to compare the cost and revenue picture on all National Forests. The Forest Service has developed some draft below-cost timber sale program guidelines which we are currently testing on four test Forests. We are confident that these guidelines will result in more economically efficient timber sale programs on the National Forests.

The development and implementation of TSPIRS has lead the Forest Service to believe that the system could be expanded to include all resources. We are working with the GAO to develop a system entitled, "All Resource Reporting." This system is being tested on eight National Forests this year.

Below-Cost Sales in the South

Overall, the development and implementation of TSPIRS is a success. However, we are viewing it as a beginning not the end.

Not many years ago, all National Forests in the South and East could be called "below-cost" by todays definition. They were heavily cut over and largely devoid of wildlife when acquired for National Forest purposes. They really were "the lands nobody wanted." In 1930, the total revenue from National Forest lands in the Southern Region was $950,000.

Now after several decades of scientific forest management, protection from fire, insects and disease, and trespass, these same lands are becoming more and more productive and beautiful. In FY 88, value recieved from National Forest resources in the Southern Region amounted to over $118 million. We are proud of these accomplishments.

There is little debate that the investment of scarce public tax dollars should be prudent and not wasteful. Yet, the Forest Service is not a private company interested only in the bottom line. The Multiple-Use Sustained-Yield Act directs us to manage "with consideration being given to the relative values of the resources and not necessarily the combination of uses that will give the greatest dollar return." Of all the activities permitted on National Forest lands, only minerals extraction and timber harvest produce revenues in excess of costs.

To add perspective to this issue, let me share a few facts about the Southern Region's Timber Sale Program using FY 88 TSPIRS data (FY 89 information is not yet available).

--Approximately 1.4 billion board feet of timber, valued at $110 million (which includes $10.3 million of purchaser road credits), were harvested from National Forest system lands in the Southern Region.

--Revenues exceeded operating expenses by over $32 million, of which nearly $21 million were distributed to local Governments for road and school programs.

--An estimated 12,000 jobs and almost $306 million of economic activity were generated in local communities as a result of the timber sale program.

--Through local Forest Service firewood programs, approximately 132,000 cords of fuelwood were given away free of charge to local residents for their personal use.

--There were other benefits from the timber sale program that go beyond revenues. We call these "positive net public benefits" and they include improvement of public access, more diverse wildlife habitat, and a reduction in risk of insect and disease epidemics. These benefits are estimated to total over $98 million.

--While five of the mountain National Forests in Virginia, North Carolina, Tennessee, and Kentucky had direct costs that exceeded revenues, all

National Forests in the Southern Region, with exception of the Caribbean National Forest in Puerto Rico, displayed positive net public benefits from their timber sale programs. (The Caribbean National Forest does not have a commercial timber sale program.)

--In the five mountain National Forests of the Southern Appalachians, timber revenues were approximately $9.6 million while expenditures were about $14.6 million. However, these timber sales also generated approximately 2,200 jobs and $54 million in income for the Southern Appalachian area.

National Forest Roads in the South

Roads are essential for meeting multiple use objectives and for providing access for the protection and management of National Forest System lands. They are also essential for the vast majority of National Forest visitors including those who drive to the trailheads that access Wilderness areas. Approximately 98 percent of all recreation takes place within three-fourths miles of a road. For most of my career, the public has wanted better access and good roads.

Nearly 80 percent of the permanent road system in the National Forests of the Southern Region is now complete. Reconstruction of roads will continue as needed to improve public safety and mitigate soil and water impacts. Most roads are single lane, low standard roads, temporarily used and then closed. These roads are designed to have a minimum impact on the land, and they are closed following timber harvest. They often replace old roads located in environmentally unacceptable locations. About three-fourths of new roads are closed when the timber sale is complete.

In 1988, there were approximately 240 miles of new roads constructed and 687 miles of existing roads improved. Ninety-eight percent of all new roads are low-standard "local" roads.

The charges of excess road building have no legitimate basis. Nationally, the Forest Service fell short of planned new road construction by 13 miles over the past 6 years. However, during this period, we placed more gravel on road surfaces, replaced more culverts, and realigned more existing roads for safety and environmental reasons than was planned. These actions have not resulted in excess roads, rather in improved existing roads that are better able to handle existing and future traffic.

To close, Mr. Chairman, as with the first topic discussed here this morning, involving the pressures brought about by expanding urban populations into rural areas, the public's view of timber sales and roads may be changing on some National Forests. We are doing our best to listen to all of our publics and adjust our management in ways that are consistent with existing laws and in ways that will provide the greatest overall public benefits.

Thank you. I'd be happy to respond to questions.

STATEMENT OF
JOHN E. ALCOCK
REGIONAL FORESTER, SOUTHERN REGION
FOREST SERVICE
UNITED STATES DEPARTMENT OF AGRICULTURE

Before the
Subcommittee on Conservation and Forestry
Committee on Agriculture, Nutrition, and Forestry
United States Senate

Concerning the Biological Diversity of National Forest Lands And the Status of the Red Cockaded Woodpecker, an Endangered Species

October 30, 1989
Atlanta, Georgia

MR. CHAIRMAN AND MEMBERS OF THE SUBCOMMITTEE:

Thank you for the opportunity to testify on behalf of the Department of Agriculture today. I will discuss three important issues, two facing all public land managers nationwide (bio-diversity and threatened and endangered species) and another more specific to the National Forests in the Southern Region, the status of the red-cockaded woodpecker. I have with me Ron Escano, an endangered species specialist with the Southern Region of the Forest Service, and Michael Lennartz, who conducts research on endangered species for the Southeastern Forest Experiment Station.

The Situation Concerning Bio-Diversity

Attention to bio-diversity as it relates to National Forest Systems is required by the National Forest Management Act of 1976. The Act requires that our planning regulations include guidelines which provide for diversity of plant and animal communities in order to meet overall multiple use objectives and directs the Forests to provide, where appropriate, and to the degree practical, for preservation of tree species similar to that existing in the planning area. While NFMA does not define diversity the implementing regulations defined it as the distribution and abundance of different plant and animal communities and species within the area covered by a land and resource management plan.

We have defined bio-diversity as the variety of genes, species, plant and animal communities, and processes through which organisms interact. It is broken into a hierarchy that ranges from the large ecosytems of several thousand acres all the way down to the genetic variation/viability of individual species. It includes plants as well as animals, and it seeks to look at all of them in an integrated fashion. The Forest Service has a long history of concern with maintaining and increasing diversity and that concern continues today. Although NFMA does not go into detail about how to address bio-diversity, we read the diversity requirements of NFMA and its implementing regulations in context with other requirements of the law. Included in these requirements are maintenance of viable populations of wildlife; efforts to recover threatened or endangered species of plants and animals; and protection of special habitats, ecological communities, or ecosytems.

The Goals

The Forest Service has established four areas of emphasis to meet its goal of conserving bio-diversity and integrating the concept into our overall multiple use program. They are:

1. Policies and programs that are consistent with existing knowledge and legal requirements and that are coordinated with other agencies.

2. Active management of genetic resources, populations, habitats, landscapes, ecosystems, and human activities to recover species listed as threatened or endangered, maintenance of population viability for all species, protection of unique habitats, and management of populations of species desired by humans as commercial or recreational purposes.

3. Communication of policies and programs internally and externally.

4. Research, technology transfer, and cooperative assistance on the highest priority needs.

The Strategy

In accomplishing these goals we are coordinating our efforts with other agencies and cooperators. Conserving bio-diversity requires a variety of approaches. A piecemeal approach is not sufficient. The Forest Service needs to manage ecosystems at the regional, landscape, watershed, and stand scales. Some habitats need to be left essentially alone, while others require vegetative manipulation. Vegetative manipulation plays the role once held by fire and other natural phenomena to interrupt natural succession so as to maintain or create conditions necessary to the survival of some species.

Species populations must be managed to sustain genetic variation, with regard to spatial distribution, and habitat fragmentation as they affect viability of the species.

In addition to our many ongoing efforts in endangered species recovery, on-the-ground work to attain well-distributed populations of plants and animals; projects to increase game populations, and management of unique habitats, the Forest Service is taking an active role in bio-diversity issues. During 1989, bio-diversity workshops, co-sponsored by the Forest Service, were held across the country. The Southern Region, along with Southeastern Forest Experiment Station, Southern Forest Experiment Station and two professional societies held a symposium in Charleston, SC. An interagency short course on bio-diversity is scheduled for next spring. Research units are examining a variety of bio-diversity related issues. All of these efforts must be integrated into overall plans and programs for resource management, research, and assistance.

Threatened and Endangered Species

A specific example of our work to conserve bio-diversity is in our effort to promote the recovery of threatened or endangered species. There are over 80 federally listed plant and animal species in the Southern Region. Most of these species are very localized and restricted in distribution. Let me briefly mention a few specific management actions.

--In recent years, we have used prescribed burning in the summer to foster wiregrass biological communities under long leaf pine in Florida. This practice also improves habitat for gopher tortoise, an endangered species.

--We have instituted a variety of practices to restore and monitor mountain balds such as Roan Mountain Bald in North Carolina. Balds provide habitat for many rare, endangered or sensitive species.

--On the Kisatchie National Forest in Louisiana, we have improved habitat for the Louisiana pearl shell mussel, modified management activities to enhance habitat for the north flying squirrel in Virginia, the pond berry and pitcher plant in Mississippi.

--In cooperation with other agencies or groups, we have had highly successful hacking programs for the peregrine falcon and osprey in Virginia, North Carolina and Kentucky.

--We have protected Harper's beauty habitat and augmented the population in Georgia on the Chattahoochee.

There are many more examples which could be cited. But, the key point is we are dealing both with communities and individual species. All of the Southern Forests have programs for threatened and endangered species.

Status and Trends for the Red-Cockaded Woodpecker

As I stated before, most threatened and endangered species have very restricted or limited distribution. One exception is the red-cockaded woodpecker which was common throughout the pine forests of the South. Today, although this species is still widely distributed in 12 states across the South, the number of areas where potentially viable red-cockaded woodpecker populations can exist is limited to less than 20 large tracts of pine forests. These are primarily on public lands, scattered across the South from North Carolina to Texas. Many of the Forest Service red-cockaded woodpecker populations are small, and some are declining.

Recently, the largest population of woodpeckers--on the Francis Marion National Forest in South Carolina--was heavily damaged by Hurricane Hugo. This Forest contained almost 25 percent of the total known woodpecker population on National Forest lands. Early estimates indicate that half of the birds on the Francis Marion may have been destroyed.

However, a more common problem for our woodpecker populations comes from hardwood mid-story encroachment in the woodpecker colony sites. Historically, fire suppressed this hardwood encroachment, and without fire succession makes woodpecker nesting habitat unsuitable. We have begun an aggressive program of hardwood mid-story control. In Fiscal Year 89, we treated 37,000 acres; several hundred colony sites. In some populations, there is a critical lack of suitable cavity trees. In most populations the availability of future cavity trees will be increasing as the forests get older, but there will be a 10-to 30-year lag time before potential cavity trees are readily available.

In response to cavity tree loss from hurricane Hugo, we are inserting artificial cavities in standing trees. This practice was being tested by the Southeastern Forest Experiment Station, but we are now in a full scale effort to install these cavities. As a stop gap measure, it is certainly the thing to do. If they work well, we will begin using them on a regular basis to supplement natural cavities.

Recovery and Management

Recovery plans for the Red-Cockaded Woodpecker are developed in close cooperation with the U.S. Fish and Wildlife Service. The recovery of this endangered species is almost totally dependent upon National Forest habitat. Seventy percent of the potential habitat is on National Forests. Thirteen of the 15 populations needed to declare the red cockaded woodpecker recovered and removed from the endangered species list are on the National Forests. Only three of these (perhaps two after Hugo) are considered large enough to ensure long-term genetic viability. Recovery, although attainable, will be a long-term process (20 to 50 years).

The red-cockaded woodpecker will require timber management to achieve recovery. Hardwood and pine mid-story encroachment, the primary cause of recent declines, will require thinnings, prescribed burning and other vegetation treatments to maintain suitable habitat. Timber management including regeneration is needed to ensure a supply of suitable habitat through time.

Most of the research on the Red-Cockaded Woodpecker has been done by Forest Service scientists or funded by the Forest Service at various universities. There are still critical gaps in our knowledge and additional research is needed.

Ron Escano, Mike Lennartz, and I will be happy to respond to your questions.

Senator FOWLER. Thank you, Mr. Alcock. Let me ask you, what is the name of the system, what do you call the system that is used for a price increase?

Mr. ALCOCK. It is a fair market value increase.

Senator FOWLER. In this method, do you take into account the government's cost of making the timber available for sale?

Mr. ALCOCK. No, we take the value of the final product and work it back to the stump deducting the various costs along the way.

Senator FOWLER. Well, isn't it crazy to even suggest that if you—we could solve a lot of this business tomorrow if we simply charged minimum prices for the commodity at government cost? Has the Forest Service ever considered that?

Mr. ALCOCK. Yes, we have thought about it seriously and we continue to think about it and it may have practical application in some ways. Of course, we do set a minimum value, a minimum appraised value right now and the bidding starts from that point and works up.

Senator FOWLER. But we are, are we not, subsidizing, actually subsidizing at this point those companies that do buy timber from the national forests?

Mr. ALCOCK. I wish I could respond to that better. Yes, on the one hand, I guess you could say we are subsidizing, but that is a very powerful word, I believe, and what we see it as is more of an investment in the resources in each of these areas where roading is being done. It is a long-term endeavor.

Senator FOWLER. Well, in the interest of time, I won't go into that.

The TSPIRS that you—you have people within the Service itself that you have heard, you may not have heard testify, but the Chief has, that says that the age of that accounting system itself underestimates expenses.

For example, TSPIRS amortizes road cost over the entire timber road basically using 80 years rather than following the standard business practice of depreciating an asset over its usual life span. TSPIRS does not adjust the past road cost over time to account for inflation.

Well, I guess what I am—we can get back to that, but let me make sure that from the Services point of view and in your experience, is there anything in the law that would stop you, if the Service decided to do it, that would stop you from recovering the cost of selling the public's timber?

Mr. ALCOCK. Not to my knowledge. Our direction has always been to sell, try to determine the fair market value and offer the timber to the public for that, at that rate.

Senator FOWLER. OK. Ms. Lancelot, I was very interested in your suggestion of—I can't find it now, I wrote it down—an access fee for recreational usage. I am sure we would have a lot of people opposed to that, but I am interested in that kind of balance for multiuse when we have the demand that we have. Has the National Taxpayers Union done any cost accounting on that? Do you have any figures you can send me later on that? Calculated the rates and what kind of level that would not prohibit the majority of public access by not being too high, but would also help pay for a minimum, or a modest amount for the recreational usage of our public lands?

Ms. **Lancelot**. Well, I have to confess that we, NTU, ourselves have not done that either. We have taken other's research and I certainly can send you some information of several who have been kind enough to put forth this notion and I just wanted to mention——

Senator **Fowler**. It also fits in, not only with Mr. Thompson's suggestion for an all-resource accounting system, does it not, Mr. Thompson?

Mr. **Thompson**. Precisely.

Senator **Fowler**. Wherein we would all have the same goal, and so I would be interested in any further information either of you could send me on that.

Ms. **Lancelot**. Let me just make one further comment. Of course, there are some of us sitting here at this table, I am sure, that would probably oppose or there is certainly that impression, that that kind of policy would be opposed. I just want to say that things, unfortunately, are very different in this country and in this world today. We continue to have tremendous budget deficits. We have the national debt of, I think $2.7 trillion at this time, and the interest on that debt is more than the deficit, I don't know exactly, but it is something like $165 million. Things have changed, things are different, and we have to look at these resources in a different light and need to protect the taxpayers as well as protecting the resource, and that is just one idea of trying to do both.

Senator **Fowler**. Well, let me go into another area where angels fear to tread but I will proceed, I will be interested, since we have us two fiscal conservatives here, Ms. Lancelot, me and you. [Laughter.]

Ms. **Lancelot**. That's it, huh? [Laughter.]

Senator **Fowler**. We, in the—I don't know how many angels there are. [Laughter.]

We, in the South, have been chastised, as you know, for many years for farm subsidies that cost the Government money. We have been fortunate to have many of our programs develop concepts that now cost the Government little, if any, money through changes in these programs.

Is there any difference between farm subsidies and timber subsidies, or should the Service be held to the same fiscal responsibility that we are now holding our country's farmers to?

Ms. **Lancelot**. Well, absolutely. We, the National Taxpayers Union, that is one of the big pushes that we have tried to do over many years, which is, we are trying to cut subsidies across the board. We think that industry, whatever it is, should pay for its own cost of doing business whether it is the farm industry, the timber industry, whether it is in the electrical utility business, whatever. Subsidies need to be—there should not be any subsidies to any of that.

Senator **Fowler**. Mr. Thompson, you won't mind, since you raised your hand earlier on being a fiscal conservative, so you won't mind me asking you a philosophical question. I assume that you—along that same line, I can stay on the same topic. I assume that you are a supporter as am I and all of us are of a free enterprise capitalistic system. Should we subsidize timber companies with Government timber that is not making a profit?

Mr. THOMPSON. First, on philosophy, no. There are some more complex issues behind that. First, I would like to say that at Sylva, North Carolina, where we have a plant, we are operating on the Pisgah now, more or less. We look on Forest Service timber and the private timber coming on the market in the same way as far as economic analysis as to what it will cost us to deliver it to the plant, grade, species and so on being equal. So, however, I wanted to say we were not being subsidized by buying cheaper timber from the Forest Service to mix in with private timber.

Senator FOWLER. Well, I suppose we could argue for a minute, but you are not participating in the cost of that delivery, the cost of those roads to get that timber, and so it is a subsidy. I mean you might treat it the same, and I appreciate your candor, but I think you will agree with me that there are costs that the general taxpayer is participating in that you are not participating in, and so that it is a very different breed of cat, or breed of product which you—when you receive it.

Mr. THOMPSON. Well, admitted, there have been investments there over long term that we benefit from whereas the private landowner has made his own investment.

The point I was making——

Senator FOWLER. Please.

Mr. THOMPSON. As far as timber between the private sector, the private sector makes up about 60 percent of our supply. The U.S. Forest Service about 40.

Senator FOWLER. In your company or what——

Mr. THOMPSON. In the Sylva, North Carolina operation. In my, T & S Hardwood Company.

Senator FOWLER. I understand, in your operation.

Mr. THOMPSON. And I couldn't agree with you more that if somehow we can eliminate subsidies and trim costs and so on, it would be helpful. The lumber that we sell from the national forests or the lumber that we sell from private land, you know, is not identified, it goes into the same barn, obviously, but——

Senator FOWLER. Yes, sir.

Mr. Pollard, let me ask you, I am just going to jump around, do you and other private timber growers feel that the Government is in competition with you when it comes to public timber being sold in the marketplace?

Mr. POLLARD. We, in our, in my area, close to Augusta, Georgia, there is a big demand for timber and in that area, we need all the timber we can get. I am not familiar with all the other areas, but there is more demand than there is resources at the present time.

Senator FOWLER. Let me ask it another way, what percentage of your company is relying on timber from the public land?

Mr. POLLARD. Forty to fifty percent.

Senator FOWLER. Forty to fifty percent, well, do you—let me ask that same question another way, do you feel that the public timber involvement in the marketplace affects the market price of the timber for the private timber owner?

Mr. **Pollard**. No, sir. Because the demand is greater than the supply. The demand for timber in our area is greater than the supply.

Senator **Fowler**. In the Augusta area.

Mr. **Pollard**. We have been cutting more timber, according to the latest report, the Piedmont in Georgia has been cutting more private timber than they have been growing. That is private timber, I think the Forest Service is on a sustained yield basis.

Senator **Fowler**. Well, I don't doubt that you have regional differences in the markets.

I have it here somewhere, I just can't put my finger on it, but in all these Forest Service reports, but I don't think—the cutting exceeds the demand in some of the regions for last year.

Mr. **Alcock**. We are on a sustained yield basis. You are talking about from the national Forest Service.

Senator **Fowler**. No, I am talking about in the southern region.

Mr. **Alcock**. Oh, private and public?

Senator **Fowler**. Well, I will try to find it and put it on the record.

Mr. **Alcock**. It is true, Senator, as far as, for the first time in several decades, harvest is beginning to exceed the growth, not just here in Georgia, but in several parts of the South and so that is a changing situation.

Senator **Fowler**. What are you talking about, the public land or the private land?

Mr. **Alcock**. Primarily in the private land. It is 90 percent private.

Senator **Fowler**. Well, I wanted to discuss that with Mr. Pollard and Mr. Thompson. We have had a little bit of that discussion. This is my fourth or fifth hearing. I have been all over the country, when asked, I am not intruding, but I am trying to gather all of the information we can.

There is another question is my mind, talking about private land, that because of the repeal of the capital gains tax treatment of private companies and private entrepreneurs, we are now cutting far more timber than we are planting, as Mr. Thompson——

Mr. **Thompson**. I agree.

Senator **Fowler** [continuing]. Agreed with me. That is why I am a great supporter of capital gains treatment of timber. I think it is not only the right decision for us to treat that industry, because of its long-term development needs, in that way, but I think even in 2 years now, we have the evidence that people are cutting and they are not replanting. In other words, going out of business, the same thing we have with certain commodities, where all of a sudden the price of the land is a lot more valuable than further on up the road, say, for instance.

Well, that is my opinion. Mr. Pollard, back to you. Would timber planting increase with the return of capital gains treatment? And tell me if I am wrong. I can vote either way.

Mr. **Pollard**. One example, I have recently had a landowner who told me about cutting his timber. He said that I want to wait until they pass capital gains, because in the past with capital gains, I had enough money left over to plant. The difference in the 20 percent and 28 percent, I would have 8 percent and replant by land

and I want to, if at all possible, wait to receive the money so that I would have the 8 percent to 10 left to replant the land, and if I didn't get that, I probably won't replant it. So I think it is for sure that capital gains, taking away of capital gains has affected replanting of timber in the South. He will have the same amount of money after planting either way.

Senator FOWLER. Uh-huh.

Mr. POLLARD. If he had capital gains, so——

Senator FOWLER. Then, if we, along that line, based on that, you, in fact, if you share that view, if we stopped the below-cost sales entirely, do you think timber under our marketing system would be replaced in the private sector?

Mr. POLLARD. No, sir. I don't think it is there to replace. I don't think we can—I think the demand is increasing and we have a limited supply of land and we could do better management and there are many things the Government can do to help landowners do better management, but I don't think that we have the land basically available now and the willingness of the people to increase private cutting when they are already cutting more than they are growing.

Senator FOWLER. Do you export?

Mr. POLLARD. No, sir.

Senator FOWLER. Mr. Kirby, you have provided us with overall numbers about the Forest Service's plans on the road construction from your, from The Wilderness Society's viewpoint, what do these plans actually mean for undeveloped national forest areas of concern to you and other conservation groups in Georgia? Specifically, are there any special areas in Georgia that you would like to direct the Forest Service's attention to for protection?

Mr. KIRBY. Yes, Mr. Senator, in fact there are a number of popular national forest areas a short distance from here that are at risk under the Chattahoochee Forest plan. As you may know, on the Southern Appalachian Forests as a whole, less than 10 percent of the land is protected as wilderness. The Forest Service admits that this is going to be inadequate to meet future demands for wilderness as this region grows, yet the Chattahoochee plan zones the scarce remaining wild lands primarily for timber and roading.

Specifically, here in the Chattahoochee, there are about 150,000 acres of potential wilderness that we will need in the future, yet over 100,000 acres of this is zoned for logging and road construction. This includes some of the most popular and beautiful areas in this State. For example: the Blood Mountain area near Vogel State Park. The Mountaintown area popular among trout fishermen near the Cohutta Wilderness. The Chattahoochee River area which contains the headwaters for our Chattahoochee River near Helen. Needed extensions to the Tray Mountain wilderness, and the Overflow area near Clayton, among others. It makes no sense to be entering and destroying the wild land character of these areas for subsidized timber sales, as Mr. Alcock admitted, and new road construction where those dollars could be much better spent elsewhere like working with the private sector to increase productivity in private lands in this region.

Senator FOWLER. Thank you, Mr. Kirby.

Mr. **Kirby**. Could I also respond, if I could have one more minute, to Mr. Alcock's point about how these forests are producing more benefits than cost even though they are actually losing money?

Senator **Fowler**. Please.

Mr. **Kirby**. The Forest Service does this calculation as part of its TSPIRS reporting system that Congress mandated. Yet the Forest Service fails to take into account many of the negative effects of timber sales below cost and road construction.

For example, it is really quite shocking in the report for fiscal year 1988 that the Forest Service counts zero negative dollar effects on soils and water and fisheries in any of these Appalachian national forests from their Road Construction Program. You, yourself, saw some pictures just a second ago taken within the last week showing the serious damage to these resources. Also, the Forest Service adds in purported benefits to other resources like recreation, when, in fact, there is an oversupply of roaded recreation opportunities and groups like the Sierra Club and many hiking groups oppose new road construction which penetrates the few wild lands remaining.

So I would suggest that in fact the forests are not only below-cost financially but are producing negative benefits for all multiple uses.

Senator **Fowler**. Mr. Alcock, we have to go on to the next panel. We have been going a long time and all of this has been really helpful to me.

But let me ask you, just in reviewing this last week, the Chattahoochee plan versus the Cherokee plan, I see the Chattahoochee plan envisions only even-age management whereas the Cherokee does include group and single tree management, why is that?

Mr. **Alcock**. Well, the Chattahoochee also has some group selection and uneven-age management in the plan.

Senator **Fowler**. It does?

Mr. **Alcock**. Yes, sir.

Mr. **Kirby**. It has—Mr. Senator, it has a tiny, tiny amount only on an experimental basis. It does not have anywhere near the 10 percent, for example, that is used on the Cherokee. The Sumter plan, in contrast, uses 100 percent clearcut compared to forests like the Cherokee that do use alternatives.

Mr. **Alcock**. Well, irregardless of the amount, none of our national forests in the South, it is true, they do not have a large amount of group and single tree selection, it is an uneven-age management. We are moving somewhat in that direction where it makes sense and have available ground because we are well aware that the public is never going to accept clearcutting in the mountains to any large extent. We have tried. The fact is, for 20 years and then some too, clearcutting in the mountains has been, and is, in their best interest, and as a matter of fact, we believe it has been successful in just about every way except aesthetically and we will never be able to conquer that because——

Senator **Fowler**. That is like saying an egg would be perfect if it was only round. [Laughter.]

Mr. **Alcock**. It is just like a shopping center or anything else, there is a period of disturbance while preparing the ground. We can't get away from that, and so we are beginning to move toward uneven-age management and away from clearcutting but there is much to be learned about that. We have done uneven-age management in the past and it was done successfully. We haven't learned as much from research since we stopped using uneven-age management 25 to 30 years ago in the Appalachian Mountains, and so it is not, there is no silver bullet here.

Senator FOWLER. Well, again, while I have the four of you and have all of the leadership here of the Forest Service of this region, I do wish that, Mr. Alcock, and your staff, if we could—I have spent a lot of time in the West, and we don't have the great old-growth forest today here, for the reasons the Chief, as he said, most of them have already been cut, but we still have in the southern region small forests, or forests that have, let's stay out of the definitional battle for a minute, old-growth characteristics, which, let's say, for lack of a better term, let's start at about 100 years, but we can't have any old growth in the future if we cut everything and stay on an 80-year rotation plan. It just seems to me common sense that we could identify, begin by identifying those stands that are 100 years old and older and stay out of the western problem completely in our region by setting up the site right now. No questions asked. Total road moratorium. They are just going to be protected. If you want me to put them in the wilderness bill, I will put them in the wilderness bill, but you have the authority to do a lot, but once that determination is made by the Forest Service, then we won't need these battles, and whatever is happening in the West is, as usual it starts in California and moves this way, and I just hope you will review that in your region and see if we can't begin to show the rest of the Nation how we use our common sense.

Mr. ALCOCK. I think your point, Senator, most of the areas of that description, in our region, are already under protected status of some kind or another. Well, we have a huge lot of timber stand coming along that is about 70 to 80 years old, all coming up essentially at the same time, and those areas that Peter mentioned, everyone of those areas are currently being protected during this plan period and then we will drag them out again and let the public debate take place again, and I am sure some of those areas will be recommended to Congress for wilderness.

Senator FOWLER. Well, I appreciate the answers to all of this.

Mr. KIRBY. That's not true. That is not true at all, Mr. Alcock, that these areas are protected. Many of the areas I mentioned have been proposed for logging, road construction, and have had prior appeals by the Sierra Club and Wilderness Society to stop the loss of wild lands. We have a chart here in "Mountain Treasures at Risk," that shows over half of the potential wilderness areas in the Southern Appalachian are zoned for logging. Those areas are not protected, Mr. Alcock.

Mr. ALCOCK. Well, they are not being logged, correct?

Mr. KIRBY. They are being logged.

Mr. ALCOCK. Blood Mountain is being logged?

Mr. KIRBY. There are timber sales being considered for Blood Mountain next year. We have had the good fortune of your doing an environmental impact statement on proposed timber infiltration in the Cheoah Bald area. We have appealed timber sales in the Tray Mountain area last year. Those are areas at risk.

Mr. ALCOCK. Well, we look at that as when you raise the issue as an area that should be protected. Wouldn't you agree that most every time we have been responsive in protecting those areas?

Mr. KIRBY. No, not at all. [Laughter.]

Mr. ALCOCK. Good shot.

Mr. KIRBY. And there are many areas, mountain wilderness areas, for example, Springer Mountain at the beginning of the Appalachian Trail, have been completely eliminated as potential wilderness by Forest Service road construction and logging.

Senator FOWLER. Well, from the Chief on down this morning, we have agreement on one thing, in the southern region, we need more wilderness areas. I was trying to think of a term other than wilderness because that is the art term and I am not putting words in his mouth, we need more areas set aside for multiple use, I think would be accurate for what the Chief said, would it not, we need more multiple-use areas. Mr. Thompson also validated that. Up to and including wilderness, but Mr. Kirby's point, and we just ought not have to go through these lawsuits, if the Service understands the population pressures as they have testified to this morning.

There are a lot of things, a lot of these areas, Blood Mountain, Tray Mountain, a lot of them that have been identified for many years, nothing new, where it would just be extraordinary testimony to the multiple-use, the recognition of the multiple-use concept if those areas were protected and timber sales not contemplated. At least we have agreement, are we in agreement on that?

Mr. ALCOCK. I can't necessarily agree with every area that Peter mentioned here, because if we take the map and see how large the area, it is kind of hard to know exactly what we are talking about, but in concept, I believe there is room on the public land for more protected areas, protected by wilderness, protected by other designations that are equally as good and maybe permit a little different kind of use out on the land that is still in protection.

Senator FOWLER. Ladies and gentlemen, I thank you very, very much for your participation, you have been very helpful to me and anything you can think of that we didn't discuss, I would be delighted to have you write me or call me as we work on and write public policy.

Let's take about a 5-minute break and then we will have our final panel.

[Recess.]

Senator FOWLER. Our last panel will be Dr. Lindsay Boring, assistant professor of forest ecology, School of Forest Resources in Athens; Dr. Rudy Rosen, director, Southeastern Center of the National Wildlife Federation; John Godbee, environmental specialist, for Union Camp in Savannah; and Mr. Alcock, if he needs to defend the Service.

We will begin with Dr. Lindsay Boring, School of Forest Resources, University of Georgia. Welcome, Dr. Boring.

STATEMENT OF LINDSAY ROSS BORING, ASSISTANT PROFESSOR OF FOREST ECOLOGY, SCHOOL OF FOREST RESOURCES, UNIVERSITY OF GEORGIA, ATHENS, GA

Dr. **Boring**. Thank you, Senator.

TECHNICAL ASPECTS RELATING TO THE CONSERVATION OF BIOLOGICAL DIVERSITY

As I am, of course, an ecologist, Senator, I am going to restrict my comments to technical aspects relating to the conservation of biological diversity and I will not deal with a lot of policy level issues, but some of my comments may raise some questions which later, I will be glad to address.

Senator **Fowler**. All right.

SUMMARY

Dr. **Boring**. It seems that public concern and Federal legislation have created a mandate for the conservation of biological diversity within the U.S. National Forest System. However, the integration of such an ambitious program into the management of our national forest requires several things. I will briefly mention these and then elaborate on several of them. First is the precise definition of the complex term "biological diversity" and the level that it will be addressed in forest management plans. It is a very complex issue and there may be many definitions.

Second, there is the consideration of species diversity relative to landscape diversity, and to structural and functional diversity of forests, and I will define those terms in a little more detail. Third, additional research will be needed to provide more information about biological diversity and the effects of forest management upon many key species. Fourth, to implement such a program, we will need a continuing commitment from society and forest resource agencies to fund, develop, and implement complicated programs, and this would be a potentially expensive endeavor to develop and implement relatively more complicated management programs.

DEFINING BIOLOGICAL DIVERSITY

To start with defining biological diversity, we could use many terminologies. We could define, first of all, genetic diversity, with which we may be concerned when we deal with extinctions or tropical species we don't even know are there yet.

We also might define biodiversity as species diversity or species richness within a single forest site. We might talk about collective assemblages of species in vegetation types across the landscape, or we might use this general terminology in defining the status of certain rare, endangered or threatened species, such as the red-cockaded woodpecker.

LANDSCAPE DIVERSITY

I would propose that forest management consider practices relative to the scale of the whole landscape and of the stand as well, rather than focusing just upon individual species, which is certainly one component but not the whole picture.

If we address this question of landscape diversity after having defined species diversity, we could strictly delineate the conservation of biological diversity as required by the maintenance of all successional stages of forests as well as representative forest types within a region that would have component species, to include both young, regenerated forests and old-growth forests. Old growth is defined by 75 to 100 years old, and perhaps older, especially where we have residual primeval forests. For landscape diversity we would also have to include forests with intermediate successional status, as well as the opposite ends of the spectrum, the old growth and young growth. Certainly these forest contrast very sharply in their species composition, their structure, and their function.

Opportunistic plant species are dominant in early successional forest, as well as opportunistic species of wildlife. As time advances and as forests develop over time, different species come in and replace them. Many studies have shown that mid-successional forests are the ones that have the highest species diversity, largely because there is much overlap in early and late successional species.

We also have to keep in mind that many species have to live exclusively in early successional or these young forests. Many other species have to live exclusively in the old forests and then, more often than that, species have to utilize both of these types of forests. This brings into focus many questions a lot of wildlife managers have addressed for years on the need for a diverse forest resource so that wildlife may be able to utilize the areas in both the old-growth forest, and these earlier successional forests. So from that context, landscape diversity is a very important concept relating to species diversity and should be addressed in management of our forests.

At the same time, many vegetation types are dependent upon periodic disturbance regimes. This may include, especially in the South, flooding and fire. These disturbances may maintain environmental conditions which many species are dependent upon for survival. In some cases, we have altered these systems either purposely or inadvertently, and natural disturbances may not continue at a satisfactory level of intensity and frequency to maintain the ecosystem.

In cases where we have excluded fire for a long period of time, the system may be greatly changed, or it may lose critical elements of its species diversity.

I bring up fire, in particular, because this is a very important tool which is used not only for forest timber management but also for the management of species diversity (both game and nongame species). In the South, fire is used to manage plant communities and limitation on its use would have very harmful effects upon conservation and resource management.

STRUCTURAL AND FUNCTIONAL DIVERSITY

Now we can define biological diversity in another context, the need to maintain structural or functional diversity. We can talk about large snags and fallen logs in old-growth forests. These are very important resources for many species and they must be acknowledged for their habitat importance.

There are many noncommercial species that play an important role in maintaining productivity in forests that might be considered weed species. Nitrogen-fixing under strong plants and trees are good examples of these. They enrich the soil by providing new nitrogen from their tissues.

So there are many complex relationships that we don't understand well and we need to redouble our efforts to understand how biological diversity fits in with ecosystem function and landscape structure. This must go hand in hand with trying to implement management plans, which would include these relative complex management programs.

Senator FOWLER. Well, may I interrupt you in your statement?

Dr. BORING. Certainly.

Senator FOWLER. Because you are about to lose me here. Let me try to get the hay down where the goats can get it.

While we are debating all of these decisions on precision of this definition as you have described, in the meantime, in your opinion, is the Forest Service doing enough to protect wildlife and plant diversification in the national forests? I am asking for your judgment.

RESEARCH AND STEWARDSHIP NEEDS

Dr. BORING. In my judgment I think they have done a very good job. They made very good marks in some of the research program on these species. I think the red-cockaded woodpecker program has been in existence for quite a number of years. It is very productive. They have provided some key leadership from the Washington office all the way down to the local level, in conducting research on our understanding of biological diversity on the national forests, and in focusing on a few key species. In this, I think they have done a very good job.

I think at the same time——

Senator FOWLER. Well, let me, you have heard one of our panelists criticize the Service and I guess by extension all of us for going overboard in the protection of the woodpecker, what is your opinion, is the Service under its present plan doing enough or too much to ensure habitat for the woodpecker?

Dr. BORING. I think the biggest problem with habitat of the woodpecker is not necessarily what the Forest Service would or would not do. The big problem is that 97 percent of its habitat has been extirpated within a century or so. I think it is typical that with many of the rare and endangered species we tend to focus on the species itself, when there is really a broader problem with habitat loss and past land use patterns. This situation creates many of these problems, and then it is difficult to "save" a species after it has been reduced to a very narrow genetic base.

I think the Forest Service has done a pretty good job working with the red-cockaded woodpecker, but at the same time, I think there might be other species that need to be given much more attention. I think the red-cockaded woodpecker has been given a very visible program. Certainly everyone is looking at this program through a magnifying glass.

Within research and many aspects of implementation, the Forest Service has done a good job with the woodpecker. However, there may be other areas that could be criticized.

Senator **Fowler**. Thank you very much. We will come back to that.

Dr. **Boring**. All right, sir.

[The prepared statement of Dr. Boring follows:]

STATEMENT OF DR. LINDSAY ROSS BORING,
UNIVERSITY OF GEORGIA SCHOOL OF FOREST RESOURCES,
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ON

PROBLEMS OF MAINTAINING BIOLOGICAL DIVERSITY IN NATIONAL FORESTS

BEFORE

U.S. SENATE COMMITTEE ON AGRICULTURE,
SUBCOMMITTEE ON CONSERVATION AND FORESTRY
HONORABLE WYCHE FOWLER, JR., PRESIDING

OCTOBER 30, 1989

SUMMARY

Public concern and federal legislation have created a mandate for the conservation of biological diversity within the U.S. National Forest System. However, the integration of such an ambitious program into the management of our national forests requires: 1) precise definition of the complex term "biological diversity" and the level that it will be addressed in forest management plans; 2) consideration of species diversity relative to landscape diversity, and to structural and functional diversity of forests; 3) additional research to provide more information about biological diversity and the effects of forest management upon key species; and 4) a continuing commitment from society and forest resource agencies to fund, develop and implement complicated management programs.

DEFINING BIOLOGICAL DIVERSITY

The conservation of biological diversity is an issue that has been highlighted by concern over the rapid deforestation of tropical regions but, due to the intensity of human settlement and land management of the temperate zone, it has also become an issue in our country. At risk are vast gene pools throughout the world that may benefit humanity in the future, as well as diversity of the landscape which provides society with many amenities ranging from forest products to recreation. Conservation and restoration of biotic diversity in our country represent major challenges, but there are many positive factors which make them especially attainable goals in our society. These factors include the resilience of temperate forests following disturbances, our relatively sophisticated knowledge of ecology and resource management relative to developing countries, and the general concern of the American public and most natural resource managers.

One of the first problems in addressing biological diversity is defining the concept. It is often used to define the genetic diversity within a species, the species diversity within a single forest site, the collective assemblage of species and vegetation types across a landscape, or the status of certain key or endangered species within a given ecosystem. Before implementing any biological diversity program, it is important to precisely define the scope in which the concept of biological diversity will be applied. It is not an issue of simply contrasting species growing in forest plantations with those in native forests. Forest management should consider practices relative to the scale of the whole landscape.

LANDSCAPE DIVERSITY

Strictly delineated, the conservation of biological diversity requires the maintenance of all successional stages of forests, as well as all representative forest types. This includes young, regenerating forests, old-growth forests, and those of intermediate successional status. Regenerating forests and old-growth forests contrast sharply in their species composition, structure and function. Opportunistic plant species dominate the early successional forest, slowly surrendering their dominance over time to more shade-tolerant and longer-lived species that characterize older-growth forests. Mid-successional forests generally show the highest individual measures of species richness, but some species of flora and fauna may exclusively require either young or old growth forests.

The forests which occupy opposite ends of time gradients provide vastly different, but often highly complementary habitats for their faunal components. Wildlife management research has long documented the importance of maintaining a diverse mixture of forest ages for adequate food and cover requirements of dominant game species. In contrast, other species such as the red cockaded woodpecker and the spotted owl have very specific requirements for old growth forest habitats. Other species may require young forest growth in openings of various sizes within the forest for optimal nesting and foraging.

Many vegetation types are dependent upon periodic disturbance regimes such as flooding and fire to maintain environmental conditions under which their species survive. In some cases, natural disturbances may continue at a satisfactory level of intensity and frequency to maintain the ecosystem. In other cases, such as when fire is excluded from a fire-maintained ecosystem for a long period of time, the system may be changed forever, and lose critical elements of its biological diversity. It is often necessary to artificially reintroduce prescribed fire or some other disturbance as a management tool to maintain the desired community of species. This has been an especially necessary tool in the southeastern USA. The cooperative program between the Nature Conservancy and the Tall Timbers Research Station has pioneered the application of fire for the maintenance of biological diversity within southeastern pine forests. The use of prescribed fire is essential throughout many regions of our country, and limitation of its use would severely harm aspects of conservation and resource management, especially in the southern USA. Concomitantly, attempts to completely suppress wildfire in fire-evolved ecosystems may also have negative effects upon species diversity.

Within a given forest region it is necessary to maintain a diverse landscape if the goal is one of conserving a high level of biological diversity. This includes both young and old growth forests, and different forest types requiring diverse kinds of disturbances such as fire.

STRUCTURAL AND FUNCTIONAL DIVERSITY

Although we primarily refer to biological diversity as it is represented by species, there is also a need to maintain structural and functional diversity within forest ecosystems. Large snags and fallen logs are examples of forest structural diversity that have great importance as resources for species of animals. They may be used as sites for nesting or hibernation, as "nurse-logs" for seedling establishment, or as a substrate for fungi and insects that may be used as a food resource. Examples of functional diversity include species of nitrogen-fixing plants (such as alders, black locust, and native understory legumes) that are essential in adding nitrogen to the forest floor and maintaining long-term productivity of the forest.

Such structural and functional components of the forest ecosystem are also significant aspects of forest diversity, since they serve an important role in maintaining other species as well as forest productivity. However, we need a much better understanding of how biological diversity, ecosystem function, and landscape structure all interact before we can fully implement large and complex management programs. Wise forest management practices will have to incorporate an increased understanding of these attributes.

RESEARCH AND STEWARDSHIP NEEDS

Although the Forest Service has drawn criticism from several groups concerning certain management practices, it should be observed that the agency has a good research record of communicating within the scientific community, as well as providing leadership in some key research areas related to biological diversity. Specifically, the Southeastern Forest Experiment Station has maintained a stable and productive research program on the red cockaded woodpecker, as well as initiated new programs examining mixed pine-hardwood forest regeneration as an alternative to site conversions to pine monoculture. The Forest Service actively participates in the UNESCO Man and Biosphere Program (MAB) and has conducted international biodiversity research exchanges with other countries, including the USSR. The Coweeta Hydrologic Laboratory in the Southern Appalachians is a MAB site and is concerned with related ecological research. The SE Forest Experiment Station has also recently begun addressing the effects of several forest regeneration practices upon biodiversity. These are significant steps, but greater commitment of resources will be needed by the Forest Service if policy decisions push biodiversity issues into full implementation.

Maintaining biological diversity will require continuing, multifaceted efforts at many levels. It will not be accomplished simply by establishing new parks, biological preserves, or management plans; it will require long-term financial commitments from society, more intensive funding and research within the scientific community, and conscientious implementation by natural resource management agencies. More information is needed about ecological relationships of most targeted ecosystems and organisms, and intensive research and monitoring programs of long duration must be supported. Personnel will have to be trained with interdisciplinary perspectives in order to implement very complex management programs. Implementation will require large and stable financial support, and increased commitments to develop properly trained and experienced management personnel. Progress in our country can provide an example for developing countries whom we regularly scrutinize on these issues.

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Senator **Fowler**. Next we have Dr. Rudy A. Rosen, director of the Southeastern Center of the National Wildlife Federation. Welcome, Dr. Rosen.

STATEMENT OF RUDOLPH A. ROSEN, PH.D., DIRECTOR, SOUTHEASTERN NATURAL RESOURCES CENTER OF THE NATIONAL WILDLIFE FEDERATION, ATLANTA, GA

Dr. **Rosen**. Thank you very much.

INTRODUCTION

Mr. Chairman, I am Rudolph Rosen, director of the National Wildlife Federation's Southeastern Natural Resources Center located in Atlanta, Georgia. I am pleased to speak to you today on behalf of the National Wildlife Federation (NWF) about biodiversity, wildlife programs, and management of the red-cockaded woodpecker on U.S. Forest Service lands in the southern region.

I am going to greatly abbreviate my remarks. In most cases I am going to provide the National Wildlife Federation's recommended solution, because we wish to focus on solutions, not simply rehash the problems. All of our recommendations are included in my written comments.

IMPACTS OF HURRICANE HUGO

Mr. Chairman, this hearing comes at an especially opportune time to discuss the topic of biodiversity because we have a ready focal point showing just how fragile biodiversity really is. A few weeks ago, along the South Carolina coast, we witnessed one of nature's most devastating forces—a hurricane.

RED-COCKADED WOODPECKER

Hurricane Hugo caused a staggering loss of timber and associated wildlife. On the Francis Marion National Forest, where about 100,000 acres of forest lands were devastated, resides the world's most important population of the endangered red-cockaded woodpecker. The forest contained about a quarter of all known colonies of the birds, and up to a quarter of the world's population was devastated. Fortunately, there is still hope to save many of these birds. We urge this committee to help pass an emergency hugo relief bill that includes an appropriation of $600,000 for endangered species recovery on the Francis Marion National Forest.

BIODIVERSITY

In addition, the massive land clearing wrought by Hugo has set the stage for large-scale timber salvage and reforestation.

Hugo has provided the opportunity to enhance biodiversity on the Francis Marion. We have an opportunity to restore the native longleaf pine forests, a forest type which has become rare, and which provides essential habitat to an unusually large number of rare and endangered species of plants.

Mr. Chairman, NWF recommends that reforestation on Francis Marion emphasize the longleaf pine and that site preparation techniques be designed to restore the natural biodiversity associated with longleaf pine.

WILDLIFE AND FISH PROGRAMS

The professional expertise for working on biodiversity and endangered species, such as the red-cockaded woodpecker, rests with the biological and administrative staff working in the fish and wildlife programs in region 8 and in the Southern and Southeastern Forest Experiment Stations.

In general, staffing and funding in these programs have increased somewhat over the past few years. However, these increases haven't been sufficient to meet past demands for fish and wildlife management let alone allow for an increased focus on today's challenges in biodiversity, endangered species management, habitat fragmentation, old growth, and general fish and wildlife management needs.

Mr. Chairman, the Forest Service must be properly equipped with sufficient professional expertise and provided commensurate funding if we are to expect the Forest Service to adequately address these new and highly technical resource management issues that the public is demanding.

IN THE AREA OF ENDANGERED SPECIES

Despite the presence of about 879 species of plants and animals classed by the Forest Service as threatened, endangered, or sensitive on national forests, nearly all of the endangered species work has been focused on only a few species because of funding and staff limitations. The region's biologists deal with the most biologically diverse forest communities in the country. Yet, the endangered species program is operating on half the projected funding requirements.

The NWF recommends full funding of the endangered species program.

BIODIVERSITY

The situation with endangered species is critical, but in the area of funding and staffing of biodiversity programs it is even bleaker. Four professional level ecologists/botanists must cover 35 national forests encompassing over 12 million acres in a region characterized by extreme diversity of habitat and fragmentation in land patterns.

The NWF recommends, first, that program responsibility for biodiversity, this includes natural areas management, in the regional office should be transferred to the Fish, Wildlife, and Range Program; second, a biodiversity program manager position in the regional office should be established and staffed with a professional ecologist/botanist; and third, a biodiversity management specialist should be assigned to each supervisor's office. All staff assigned should have appropriate professional level training.

FISH AND WILDLIFE HABITAT MANAGEMENT

There simply are too few fish and wildlife management biologists to meet the management needs of the region. There are over 470 species of fish, 879 species designated by the Forest Service as meeting specialized management, and thousands of other wildlife species.

To meet wildlife and fishery management needs, the National Wildlife Federation urges that each national forest have at least one staff fishery specialist and each ranger district have at least one staff wildlife specialist. Forest supervisor and regional office staffing needs to be expanded proportionately.

RESEARCH

In the area of wildlife and biodiversity research, an evaluation of the research programs of the Southern and Southeastern Forest Experiment Stations by conservation groups identified a need for multidisciplinary studies to look at ecosystem effects of forest management practices. Needed programs include work on endangered plants and aquatic fauna, including establishment of a cooperative Center for Population Biology to address the South's most critical forest biodiversity issues.

We recommend full funding of research on biodiversity already planned at the Southeastern Station and funding to augment current programs on ecosystem research at the Southern Station.

RED-COCKADED WOODPECKER

Now I want to focus on the red-cockaded woodpecker management for just a bit. The Forest Service adopted a controversial management plan which calls for the management of woodpecker habitat on a colony by colony basis. Under this management strategy actual colony sites are delineated and then surrounded by a 200 foot buffer zone which is then excluded from timber harvest.

Adjacent to the colony site, the Forest Service designates 125 acres of foraging habitat and sets aside 10-acre stands of timber located about one-quarter to three-quarters of a mile from an active colony. These 10-acre stands are to be used by woodpeckers seeking to expand their population.

The colony-by-colony management strategy has drawn criticism because it is felt that it provides woodpeckers only the minimum amount of resources needed for survival. Exclusive reliance on this strategy is risky and could lead possibly to further declines in red-cockaded woodpecker populations.

Instead, the National Wildlife Federation urges the Forest Service to adopt a less risky approach. We suggest managing red-cockaded woodpeckers more like populations, rather than as individual colonies. We recommend delineating discreet management units in which at least 30 or more clans occur, and then adopting a management regime that addresses the overall needs of the delineated management unit as opposed to the needs of individual colonies. Such a strategy will allow for continued timber harvest, even perhaps clearcutting, but such timber harvest would be more closely matched to red-cockaded woodpecker management needs.

SUMMARY

I have covered biodiversity in my written comments, but much of this was covered by Dr. Boring, so I would like to summarize.

As the South's extensive private forest lands are subjected to more intensive management and as these same woodlands give way to development due to population growth and economic pressures, the relatively small acreages in national forests scattered across the South will increasingly become as islands in a sea of highly modified landscapes.

Do we now give into these same pressures to intensively manage our public forests as though they were private lands? We think not. We believe that national forests must focus on providing recreation, wildlife habitat, aesthetics, biodiversity, and other values that private lands simply cannot be expected to provide.

In the final analysis, we already meet specialized regional needs for timber by importing timber from elsewhere and we can continue to do so. Broader national needs can be met by increasing the production of timber on private lands in the South. However, we cannot import wildlife habitat, we cannot import biodiversity. We cannot import recreational opportunities and we cannot import wilderness. We have to produce these products for ourselves, and the South's national forests are where the public is demanding that this be done.

Thank you, Mr. Chairman.

Senator FOWLER. Thank you, Mr. Rosen.

[The prepared statement of Dr. Rosen follows:]

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COMMENTS OF THE NATIONAL WILDLIFE FEDERATION ON BIODIVERSITY, WILDLIFE PROGRAMS, AND MANAGEMENT OF THE RED-COCKADED WOODPECKER ON SOUTHERN NATIONAL FORESTS

Presented before the

Subcommittee on Forests, Family Farms, and Energy
Committee on Agriculture
United States Senate

By

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and

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Atlanta, Georgia
October 31, 1989

INTRODUCTION

Mr. Chairman, I am Rudolph Rosen, Director of the National Wildlife Federation's Southeastern Natural Resources Center located in Atlanta, Georgia. I am pleased to speak to you today on behalf of the National Wildlife Federation (NWF) about biodiversity, wildlife programs, and management of the red-cockaded woodpecker on U.S. Forest Service lands in the South.

The NWF is the nation's largest not-for-profit conservation-education organization with over 5.8 million members and supporters, and affiliated organizations in each state and in two U.S. territories.

The NWF cares deeply about the management of our public forest resources. Our members are resource users who demand balanced and objective management of our forests by resource professionals. Our members have participated actively, as cooperators with the U.S. Forest Service, in developing balanced management plans and beneficial projects for wildlife on our National Forests.

Today I am going to confine my remarks to Southern forest issues and activities of the U.S. Forest Service. Administratively, this conforms to the activities of the National Forest Systems of the Southern Region (Region 8) and the research programs of the Southern and Southeastern Forest Experiment Stations. I will discuss the three main topics listed above as requested by the Committee. In addition, I will discuss the related issue of restoring biological diversity to the Francis Marion National Forest in South Carolina in the wake of hurricane Hugo. Everything to be discussed today highlights the activities of the Forest Service's fish and wildlife programs, both management and research, and other National Forest management activities that affect fish and wildlife habitat.

Only within the past few years have the U.S. Forest Service and Congress become fully aware of the enormous value of fish, wildlife, and other so-called non-commodity biological "products" produced on our National Forests. Public outcry and media attention have brought wildlife and the concept of preserving the forest's multitude of plant and animal life--called biodiversity--to the forefront of forest management planning. Here in the South, this new public recognition of the value of wildlife and the need to preserve biodiversity on forests is critically important because timberlands dominate the Southern landscape.

Over 40% of all timberland in the United States is located here in the South. Two to three acres out of every five in each Southern state is timberland. But despite this vast acreage in timberland, very little of it is in public ownership (just the opposite of timberland ownership patterns in the West). About 80% of the South's timberland is held by small, private land owners, while the timber industry owns about another 10%. The U.S. Forest Service manages only about 6% of our Southern forests. Because relatively so few acres of forest land are in public ownership, management of public forests must maximize those benefits not associated with the profit-driven management practiced on private lands. Benefits such as preservation of unique forest communities, restoration of endangered species, general recreation, wilderness, and specialized fish and wildlife management are possible only on public lands.

These public lands must be managed to sustain tremendous recreational pressure. Over 70% of the population in Southern states participates in fish and wildlife related activities on forests. Perhaps nowhere else in the United States is there greater opportunity and need for maintenance and management of fish and wildlife resources and biodiversity to accommodate public use and provide for biological resource conservation.

There are several reasons why the use of Southern forests is so great. First, many of the South's National Forests are close to population centers. For example, the Chattahoochee and Oconee National Forests are located within an hour's drive of the metro Atlanta area, where over two million people are constantly seeking recreational opportunities. Second, National Forests in the South offer tremendous diversity and abundance of fish and wildlife resources. Just looking at fishery resources, for example, on the 35 National Forests in the thirteen Southern states and Puerto Rico, there are 470 species of fish, 39 of which are considered game fish, and 18 of which are listed federally as endangered or threatened. There are about 1800 lakes on the National Forests which can provide fishing opportunity. And last, since most of the South's forested land is in private ownership, that small portion of National Forest land, along with a small base of state forest land, remains the only forest land generally available for free public use.

IMPACTS OF HURRICANE HUGO

Mr. Chairman, this hearing comes at an especially opportune time to discuss the topic of biodiversity and focus on how fragile biodiversity really is. Usually we hear about how man's forest management practices affect biodiversity. But biodiversity is affected by nature as well. A few weeks ago, along the South Carolina coast, we witnessed one of nature's most devastating forces--a hurricane.

Red-cockaded Woodpecker

Hurricane Hugo did much damage, as this committee well knows. People were hurt, property was damaged, lives were disrupted, and so on. The hurricane caused a staggering loss of standing timber, too. On the Francis Marion National Forest, where about 100,000 acres of forest lands were devastated, resides the world's most important population of the endangered red-cockaded woodpecker. The forest contained about a quarter of all known colonies of the birds, and was one of only three viable populations. Hugo severely damaged this population. Fortunately, there is still hope to save the birds. Congress must act now to ensure full and adequate funding to support emergency restoration and research programs designed to recover this once thriving population of endangered woodpeckers.

As background, the red-cockaded woodpecker is an endangered species that excavates cavities in large living pine trees. The birds live in colonies of about two to four or five birds each. Before Hugo, it was believed there were just over 2,000 active colonies in the world, of which about 500 were located on the Francis Marion National Forest.

Hugo destroyed all cavity trees in about half of the Francis Marion's colonies. All of the Forest's colonies have lost at least some cavity trees, and perhaps as many as 25% to 75% of all birds were killed by Hugo. However, surveys have found many birds alive, but most are desperately in need of shelter.

Action is underway to survey damage and to locate existing birds and remaining viable colonies. Experimental work has shown that artificial cavities can be constructed in living trees and that these replacement shelters will be used by the birds. The Forest Service has begun installing artificial cavities. However, much more needs to be done.

Survey and monitoring activities must continue. Longer term monitoring will need to begin early this spring during the breeding season and last through the summer to monitor artificial structures. Scientific analysis of the birds' adjustment to their new environment is essential to detect and avert problems. For example, many other cavity nesting species were displaced by Hugo. These species, such as the flying squirrel, other woodpeckers, and bluebirds, could compete with red-cockaded woodpeckers for cavity space. Under normal circumstances, the specialized nesting of the woodpecker would help isolate it from these competitors, but Hugo has changed the normal "rules." In addition, technical and administrative work to coordinate and facilitate emergency field operations and support these activities will be needed at the Atlanta Regional Office. In conducting restoration activities, the Forest Service should coordinate and cooperate with forest user groups such as the National Wildlife Federation and other agencies with responsibility for endangered species.

We believe the total budget for this work--the emergency essential restoration work--will be about $600,000 over the next 12 to 18 month period.

The National Wildlife Federation urges this committee to work with other committees and members of the South Carolina Congressional delegation to pass an emergency Hugo relief bill that includes an appropriation of $600,000 for endangered species recovery (emergency surveys, monitoring, research, and program management) on the Francis Marion National Forest.

Biodiversity

The massive land clearing wrought by Hugo has set the stage for large-scale timber salvage and reforestation. We already have reviewed the plan for salvage and find it well designed to help protect red-cockaded woodpecker. But, there is more that can and must be done for conservation of biodiversity on the Francis Marion than just restore endangered woodpeckers.

Hugo has provided the opportunity to restore to the Francis Marion the native longleaf pine forest, a forest type that historically extended in an unbroken band over extensive areas of all Southern coastal states. By 1945, the original longleaf pine ecosystem had been reduced by one-third to one-half its original acreage due to over-harvest, changes in burning frequency, grazing by feral hogs, and seedling disease. Conversion to agriculture and development also has taken great toll. From the mid 1950s through the mid 1970s, longleaf acreage declined an additional 25%. Today there may be as little as 12-14% of the original longleaf pine community remaining.

The longleaf pine-wiregrass community provides essential habitat to an unusually large number of rare and endangered species of plants. According to the Nature Conservancy Heritage Program criteria, 122 taxa of plants considered endangered or threatened are associated with longleaf-wiregrass ecosystems in the South. Part of the reason this forest type has become so rare is because longleaf pine is considered more difficult to regenerate than other pines, and commercial timber interests prefer the faster growing loblolly pine. Because so much of the South is in private ownership and managed as pine plantation, the longleaf pine has been replaced by other pines.

Thus, the goal of reforestation must go beyond just creating new "pine" plantations--reforestation must recreate and restore "natural" forest ecosystems. In addition, because red-cockaded woodpecker reaches its highest abundance in native longleaf pine, reforestation with longleaf pine will help achieve red-cockaded woodpecker goals and as well as goals to restore and preserve biological diversity.

The National Wildlife Federation recommends that reforestation emphasize longleaf pine on all sites that historically were longleaf pine, and site preparation techniques should be designed to restore the natural understory vegetation typically associated with longleaf pine.

WILDLIFE AND FISH PROGRAMS

The professional expertise for working on biodiversity and endangered species, such as the red-cockaded woodpecker, rests with the biological and administrative staff working in the fish and wildlife programs in Region 8 and in the Southern and Southeastern Forest Experiment Stations. The Region's biologists and administrators are located on the Forest Districts, in Forest Supervisors' offices, and in the Regional Office. Research scientists are located on Experimental Forests and in Research Stations.

In general, staffing and funding in these programs have increased over the past few years. However, these increases have not been sufficient to meet past demands, let alone provide for today's challenges in biodiversity, endangered species management, habitat fragmentation, old growth, and general fish and wildlife management needs.

Endangered Species

Despite the presence of about 879 species of plants and animals classed by the Forest Service as threatened, endangered, or sensitive on National Forests, nearly all of the endangered species work has been focused on only a few species because of funding and staff limitations. Half of current funding in the Southern Region is spent on red-cockaded woodpecker alone. Research budgets for wildlife show a similar trend, with nearly two-thirds of funds spent on the woodpecker.

In addition to working directly on species recovery, Forest Service biologists are responsible for coordinating all endangered species activities with 15 state or commonwealth governments, three U.S. Fish and Wildlife Service Regions having 13 field offices, and 16 Forest Service administrative units. The Southern Region's endangered species program is the the most complex to administer and deals with the most biologically diverse forest communities in the country. Yet, the program is operating on half the projected funding requirements. Because of this lack of adequate resources, the endangered species program fails to address a multitude of pressing resource needs and opportunities, despite the best efforts of a motivated and professionally competent staff.

The National Wildlife Federation recommends full funding at $7 million annually and commensurate staffing of the Southern Region's endangered species program.

Biodiversity

The situation with endangered species is critical, but in the area of funding and staffing programs to manage biodiversity, the Forest Service has yet to get started. In the Southern Region there is only one professional level ecologist/botanist in the Regional Office (located in the Fish, Wildlife, and Range Program), two in Forest Supervisor's offices, and one on a Ranger District. These four professional level staff must cover 35 National Forests encompassing over 12 million acres of National Forest lands.

Habitats in the region include grasslands, coastal plains, subtropical cloud forests, Southern pines, Northern hardwoods, mountain balds, and much more. The region is characterized by diversity of habitat and extreme fragmentation in land patterns. In addition, because almost all of the area's original forests were severely impacted by farming and abusive timber harvest practices, culminating in abandonment of much of the land that today comprises the South's National Forests, our current Southern forest landscape is the product of a massive restoration effort. Dealing with the results of this hodgepodge of restoration and forest fragmentation to restore and protect biodiversity will be challenge enough for a battalion of ecologists.

The Forest Service is under strong public pressure, as well as mandate from Congress in the National Forest Management Act, to change management policies to ensure protection of biodiversity, and is faced with the additional challenge of doing this on the diverse and fragmented land forms of the South. Despite the public pressure and technical challenge, the Forest Service has yet to allocate even minimal staff or funds to start the process.

Indeed, even the administration of the biodiversity program in the Regional Office raises questions. Currently, the Regional Office's planning and budget staff are responsible for coordinating the Region's biodiversity program. Because the planning office generally directs National Forest Management Act (NFMA) activities, and because biodiversity is mandated by NFMA, the planning staff has been assigned the biodiversity program. However, the planning office has no budget nor professional staffing to address biodiversity. Biodiversity professionals are located in the Fish, Wildlife, and Range Program in the Regional Office.

But, there is another administrative mismatch in the Regional Office that impacts biodiversity programs as well. The Recreation Program in the Regional Office is responsible for managing the Natural Areas program. Establishment and management of natural areas are closely linked to efforts to preserve biodiversity. No professional ecologists staff the Regional Office's Recreation Program.

The National Wildlife Federation recommends the following: 1) Program responsibility for biodiversity (including Natural Areas management) in the Regional Office should be transferred to the Fish, Wildlife, and Range Program. 2) A Biodiversity Program Manager position in the Regional Office should be established and staffed with an ecologist/botanist, and 3) A biodiversity management specialist (professional level ecologist/botanist) should be assigned to each Supervisor's Office.

Fish and Wildlife Habitat Management

Fish and wildlife biologists have general responsibility for working with land managers to plan forest management activities that will maintain healthy populations of fish and wildlife. Often this management is targeted to enhance certain species or to further specific wildlife management goals developed in cooperation with state agencies and the public. For example, the National Wildlife Federation is cooperating with the Southern Region on the "Animal Inn" program which is intended to enhance populations of cavity nesting species such as owls and squirrels. Other cooperative special programs include turkey enhancement called "Making Tracks," enhancement of waterfowl habitat called "Taking Wing" and expanding quail populations called "Answer the Call."

Fish and wildlife biologists also are often called upon to staff technical specialties in short supply in the region. Biologists on the forests must often act as endangered species experts and in the area of biodiversity they must perform as ecologists. These are professional specialties that many biologists on the forests simply are not trained to perform. Nor should we expect these professionals, who are highly specialized in one area, to be similarly specialized in another area requiring equally intensive technical and scientific training.

There simply are not enough fish and wildlife biologists to meet management needs. In the Southern Region, there are about 65 wildlife and 16 fishery biologists staffing positions on the forests and in the various administrative offices. These biologists are responsible for activities that affect over 470 species of fish, 879 species designated by the Forest Service as requiring specialized management, and thousands of other wildlife species. There is tremendous pressure to continue building wildlife programs, both consumptive and non-consumptive. Cooperative agreements with state agencies are requiring more and more coordination each year as the South's population grows and opportunities for public recreation become more limited. Over 74 million people now live within the Southern states and over 70% of the South's population participates in wildlife related activities. The current public demand is staggering, and demand will only grow stronger as development shrinks other opportunities for forest related recreation. Fishing use alone on Southern National Forests, which amounts to over 3 million fishing days annually, is expected to double within the next 40 years.

To meet wildlife and fishery management needs, the National Wildlife Federation urges that each National Forest have at least one staff fishery specialist and each ranger district have at least one staff wildlife specialist. Forest Supervisor and Regional Office staffing must be expanded proportionately, including retroactive expansion where needed, to support fish and wildlife activities (such proportional staffing has lagged in the Regional Office as overall staff has expanded in recent years).

Research

In the area of wildlife and biodiversity research we have identified needs as well. An intensive evaluation of the research programs of the Southern and Southeastern Forest Experiment Stations by conservation groups (including the National Wildlife Federation) in February 1988 identified a need for multidisciplinary studies to look at "ecosystem effects" of forest management practices. Such studies were found essential to the management of biodiversity.

At the Southern Forest Experiment Station, recent staff additions to the Oxford and Stoneville research units in Mississippi have resulted in starts on multidisciplinary studies. These units, one working on bottomland hardwood wetlands and the other on hydrology and riparian zone issues, need to be supported and expanded to include the full complement of scientists to address questions about biodiversity. Additional work is proposed, for example, at the Crossett unit in Arkansas for multidisciplinary ecosystem studies.

At the Southeastern Forest Experiment Station, fish and wildlife work already is focusing on biodiversity, but funding of important studies already planned is lagging behind need. The current program includes intensive work (much of it centered in Georgia) on red-cockaded woodpecker and on the Southeastern fox squirrel. In addition, work is being conducted on assessing the diversity of fish in Southeastern Appalachian streams. The current program operates on about $560,000 yearly.

The Southeastern Station recently released drafts of their strategic plan. This plan was based on extensive discussions with cooperating organizations and industries, including conservation group representatives who met with the Forest Service to help identify essential research needs for wildlife and biodiversity. Conservation research needs so identified have become part of the planned activities of the Southeastern Station.

Projected but as yet unfunded programs include vital work on endangered plants and aquatic fauna, management of streamside vegetation, and work on the effects of sedimentation on aquatic communities. In addition, the Southeastern Station proposes to establish a cooperative "Center for Population Biology" to address the South's most critical biodiversity issues. The total annual funding needs for current and projected research programs total $3.8 million.

The National Wildlife Federation recommends full funding of research on biodiversity planned at the Southeastern Station and funding to augment current programs on ecosystem research at the Southern Station.

RED-COCKADED WOODPECKER

General Life History Information

The red-cockaded woodpecker (RCW) is a small bird that lives almost exclusively in older pine forests throughout the South. The RCW is a federally listed endangered species that requires mature, open stands of pine forest for its survival. The RCW is one of the only birds known to create cavities in living trees. They require mature living pines, generally with pockets of red heart fungus decay, for excavation of nest and roost cavities. Pine trees suitable as cavity trees usually are about a minimum of 70 to 90 years old, with the average tree about 95 years old.

As mature and open stands of pine disappear due to modern timber management practices on private lands, remaining suitable habitat has become fragmented and scarce. Most of this remaining older-growth pine is now confined to public forests. As a result, the bird is extinct over much of its former range, and remaining populations are confined mostly to National Forest System lands.

The red-cockaded woodpecker is a cooperatively breeding species, meaning that it has evolved in a complex social structure. RCWs normally live in a social unit known as a clan, which consists of one breeding pair, immature offspring of the breeding pair, and adult males (usually offspring of the breeding pair) who act as "helper birds." These helper birds stay with the clan for an undetermined period, helping to excavate cavities, defend territories, and feed and raise the young. It is believed that young female offspring disperse into the forest in search of mates and new territory. These young females, known as "floating birds," are thought to suffer from high mortality due to increased predation and loss of cover due to forest fragmentation. The clan may excavate a number of cavity trees within their territory, and all of the cavity trees used exclusively by one clan are known as a colony. Red-cockaded woodpeckers occupy their colonies year-round.

Cavity excavation sometimes requires more than a year. Thus, cavities are a valuable and limited resource. Colonies may have from one to thirty cavity trees, usually within a relatively small area. Because of the time and effort involved in cavity excavation, they represent a substantial investment, which the birds are reluctant to abandon.

Prime habitat for the RCW is open and park-like, lacking substantial hardwood undergrowth. Such conditions are maintained naturally by recurring fire or by management through fire or mechanical removal of undergrowth. Hardwood undergrowth exposes the birds to increased predation and competition for cavities from other cavity dwelling species, which ultimately results in abandonment of the colony. Little is known about the establishment of new RCW colonies. Although the ecology of the birds has been studied for years, the establishment of colonies in new locations is virtually undocumented.

Status and Trends

Although red-cockaded woodpeckers were once common in the southeastern United States, the species has declined drastically in numbers and distribution. A status report released in June, 1989 by the U.S. Forest Service documents serious declines in red-cockaded woodpecker populations. Of 27 known RCW populations on public lands, 5 populations have become locally extinct (3 since 1985), 10 populations are decreasing, 7 populations are stable to decreasing, and only 4 populations are stable to increasing. Almost three-quarters of the known colonies of the bird are located on four National Forests (Francis Marion (SC), Apalachicola (FL), Kisatchie (LA), and Talladega (AL)).

The densest, and perhaps most stable, population of RCW was located in the Francis Marion National Forest in South Carolina. This population, which encompassed about a quarter of all known colonies, was devastated when the forest was hit by Hurricane Hugo in September 1989.

Until recently, details relating to RCW population status and trends have been sketchy. Newer, more accurate data on the bird are only now becoming available, but the trends are alarming. For example, recent population studies conducted by the Forest Service on the National Forests in Texas revealed startling declines. The RCW population in the Sabine National Forest declined 76% between 1978 and 1987. The RCW populations in the Davy Crockett National Forest declined 41% from 1983 to 1987 and, during that same period, populations in the Angelina National Forest declined 42%.

The uncertainty regarding RCW population trends is further compounded by the methodology used to estimate numbers of birds. Population trends are routinely estimated by counting the number of active colonies. Recent data on the status of individual colonies, however, reveals that many colonies counted as active actually consist of only a single male, rather than a breeding pair and other helper birds. Thus, as attention focuses on the number of birds within each active colony, rather than on the number of active colonies, the estimated number of individual red-cockaded woodpeckers is likely to fall.

Red-cockaded Woodpecker Management Issues

In order to manage for RCW preservation and recovery, the Forest Service is under a mandate to balance its forest management practices designed to produce timber with practices designed to protect and enhance populations of RCWs. In attempting to do so, the Forest Service has adopted a controversial management plan which calls for the management of RCW habitat on a colony-by-colony basis. This management strategy is known as the "replacement/recruitment stand" concept. Under this concept, the actual colony site is delineated and surrounded by a 200-foot buffer zone. This total area is then excluded from timber harvesting.

Adjacent to the colony site, the Forest Service designates 125 acres of foraging habitat. This foraging habitat is subject to timber harvest, as long as the Forest Service can identify at least 125 acres of suitable foraging habitat proximate to the colony. To provide habitat for population expansion, the Forest Service sets aside "replacement/ recruitment stands." These are 10-acre stands of timber located 1/4 to 3/4 of a mile from an active colony site and which are surrounded by 125 acres of foraging habitat. The Forest Service's recovery strategy is based on the premise that RCWs will find this 10-acre replacement/recruitment stand and use it to establish a new colony (that this will actually occur has yet to be fully documented).

With the exception of the actual colony site (plus buffer) and the replacement/recruitment stand, along with certain limitations on cutting within the 125-acre foraging habitat, the rest of the forest is available for timber harvesting by whatever method and on any rotation schedule the Forest Service deems appropriate, regardless of its impact on RCW recovery.

This colony-by-colony management strategy has drawn criticism from environmental groups, scientists, state wildlife management agencies, and the public. The management strategy is designed to provide a given family of woodpeckers the minimum amount of resources it needs for survival and relies too heavily on concepts, such as the replacement/ recruitment stand concept and estimated minimum habitat requirement concept, that have yet to be fully proven and widely accepted by experts. Exclusive reliance on this "take it or leave it" strategy is risky and could lead to further declines in RCW populations.

A less risky and most likely more effective alternative would be to focus management on populations of RCWs rather than on individual colonies. Such a strategy would involve delineating discreet "management units" in which at least 30 or more clans occur, and adopting a habitat management regime which addresses the needs of the population involved and not the individual elements (colonies) of that population. Such a strategy would allow for continued timber harvest, but that harvest would be more closely matched to RCW needs.

Small clearcuts, for example, could be compatible with RCW management goals, provided that the areas are managed in long rotations of at least 100 years. Other timber harvest and management techniques would also be fully compatible, such as selective, group selection, or shelterwood tree cutting which could be designed and scheduled in such a way to maintain habitat contiguity throughout each management unit. By managing National Forests as forest ecosystems, many of the problems associated with the current approach would be minimized.

Clearly, the Forest Service has had mixed results in implementing its management plan for RCWs. Because of a lawsuit filed by the Sierra Club and The Wilderness Society against the Forest Service over forest management practices on National Forests in Texas, the federal court in Texas issued an injunction in 1988 preventing the Forest Service from clearcutting trees within 1200 meters (3/4 mile) of RCW colonies. After hearing evidence on Forest Service management practices, the court found that the fragmentation of habitat by clearcutting has resulted in separation of nesting and foraging areas, thus leading to a decline of RCW populations over the last 10 years.

Even the U.S. Fish and Wildlife Service (FWS) has expressed concern. After reviewing the replacement/ recruitment stand concept, the FWS issued a "non-jeopardy" opinion. However, they went on to state that an alternative of providing 80 and 100 year rotations on some forests, rather than the usual 70 and 80 year rotation plus replacement/recruitment stands, would be a better alternative for the species. Furthermore, the FWS stressed that their non-jeopardy opinion rested on a commitment by the Forest Service to expediently and completely implement their management program, and warned that anything less could result in disastrous consequences to the species and therefore would represent a violation of Section 7, and possibly Section 9, of the Endangered Species Act. The situation now faced by the Forest Service in Texas illustrates what can happen when forest managers adopt a cavalier attitude toward managing endangered species.

The National Wildlife Federation urges the Forest Service to manage red-cockaded woodpeckers as populations, rather than as individual colonies by delineating discreet "management units" in which at least 30 or more clans occur, and then by adopting a habitat management regime that addresses the needs of the delineated management unit.

BIODIVERSITY

The concept of biodiversity continues to be confusing and complex when related to public land management, despite having been the focus of considerable attention. Part of the confusion over biological diversity, or biodiversity as it is commonly known, is because it can be defined a number of ways and therefore means different things to different people.

In the broadest sense, biodiversity is the variety of life and its myriad of processes. In technical usage, biodiversity may mean the number of species of plants and animals that occur in a given area. Or, biodiversity may refer to a function of the number of different species in relation to the number of individual members of each species over a defined area. There are also different scales of diversity, such as the number of species within a single habitat, or the change in species composition along an environmental gradient. Thus, there can be confusion about exactly what is meant when one talks or reads about biodiversity.

The National Forest Management Act (NFMA) of 1976 requires that all forest management plans "provide for diversity of plant and animal communities." The committee of scientists appointed to advise the Secretary of Agriculture on the scientific and technical adequacy of regulations proposed to implement NFMA recognized diversity as "a major concern" and observed that "provisions for diversity as required by NFMA is one of the most perplexing issues dealt with in the draft regulations."

The final regulations define diversity as the "distribution and abundance of different plant and animal communities and species within the area covered by a land resource management plan." Although diversity is adequately defined by the regulations, many conservationists have questioned the resolve of the Forest Service to fully implement NFMA's mandate, based on the inclusion of easily evoked "escape" clauses in the language of the regulations requiring preservation and enhancement of biodiversity.

Forest Service regulations which set forth management requirements for preserving diversity state that "[m]anagement prescriptions, where appropriate and to the extent practicable, shall preserve and enhance the diversity of plant and animal communities, including endemic and desirable naturalized plant and animal species, so that it is as least as great as that which would be expected in a natural forest and the diversity of tree species similar to that existing in the planning area. Reductions in diversity of plant and animal communities and tree species from that which would be expected in a natural forest or from that similar to existing diversity in the planning area, may be prescribed only where needed to meet overall multiple use objectives." (Emphasis added.) In implementing land and resource management plans, the Forest Service's only obligation is to protect biodiversity "where appropriate and to the extent practicable." The Forest Service has given itself too much freedom to reduce diversity of plant and animal communities from the natural conditions in the forest if "needed to meet overall multiple use objectives." These regulations are too vague and too weak.

The adverse impact of mechanical site preparation on the integrity of the Coastal Plain/longleaf pine ecosystem, an issue under debate in a pending appeal of the Florida Forest Plan, provides an example of how easily current regulations allow the Forest Service to avoid NFMA's biodiversity mandate.

The longleaf pine forest with its associated native groundcover is one of the Southeast's most biologically diverse natural communities. Once the dominant natural community of the southeastern Coastal Plain, longleaf forests have been reduced from an estimated 70-87 million acres at the time of European settlement to about 10 million acres today. Scientists have documented as many as 133 different species of ground cover in a single stand of longleaf pine. However, these plant communities, adapted for survival in the fire-dependent sub-climax ecosystem of the Coastal Plain, are highly specialized and cannot tolerate mechanical soil disturbance. The native plant community is quickly replaced by invading weeds when mechanical site preparation follows clearcutting.

Intensive forestry practices, including clearcutting followed by mechanical site preparation, is endangering these important botanical communities. Yet Forest Service land management plans in Coastal Plain forests emphasize intensive forest management practices because such practices are termed "necessary to meet overall multiple-use objectives." Fortunately, techniques exist to regenerate longleaf pine communities without intensive site preperation.

The National Forests in the Coastal Plain are in a strategic position to act as major conservatories of the longleaf pine community. The Forest Service can realize this opportunity simply by emphasizing natural regeneration, shelterwood, and selective tree harvesting, and by turning to less intensive (and less costly) site preparation methods, such as prescribed burning which actually enhances the native vegetative community. These practices are generally accepted as effective ways to manage forests, although "natural regeneration" generally takes a few years longer than the more intensive techniques.

The NWF believes it is possible to preserve biological diversity and produce adequate levels of timber resources. The intensive practices described above are not necessary to regenerate longleaf pine forests. Less intensive timber management in other forest types could yield similar benefits to biodiversity. But there will be trade offs. Timber production could fall below maximum levels to more moderate levels on these public lands while other forest values will increase. We believe such trade offs will be well worthwhile, especially since private timber lands supply the bulk of timber harvested in the South.

The National Wildlife Federation urges the Forest Service to preserve existing biological diversity, and to restore natural plant-animal communities, such as the longleaf pine-wiregrass community, wherever possible. In addition, we recommend the use of less intensive regeneration techniques and inclusion of longer rotation times (to advantage species associated with old-aged stands).

SUMMARY

As the South's extensive private forest lands are subjected to more intensive management and as these same woodlands give way to development due to population growth and economic pressures, the National Forests will increasingly become as islands in a sea of highly modified landscapes. And, as competition for the South's finite land resources becomes more intense, the public will look to National Forests to provide increased production of timber, more wildlife habitat, more recreation, more wilderness areas, more clean water, and so on.

The National Wildlife Federation believes that National Forests must provide recreation, wildlife habitat, aesthetics, and the other values that private lands simply cannot be expected to provide. High quality saw timber can continue to be produced on public lands, but not at the high levels currently projected. It is time to shift focus from timber production to other forest resources and values. The Forest Service must prepare now to meet the public's need for forest lands in the future; the Forest Service must meet the demands of NFMA.

In the final analysis, we can meet specialized regional needs for timber by importing timber from other areas, while broader national needs can be met by increasing the production of timber on private lands in the South. However, we cannot import wildlife habitat, biodiversity, recreational opportunities, and wilderness. We have to produce these products for ourselves, and the South's National Forests are where the public is demanding that this be done.

We have provided a number of recommendations that must be implemented if the multiple use benefits of National Forests and the mandates of NFMA are to be realized fully. Funding and adequate professional staffing on the forest and all administrative units with ecologists, botanists, endangered species experts, and fish and wildlife management specialists is an essential first step to placing the Forest Service's biodiversity management capabilities on a par with that of timber management. Forest management techniques must be adapted to address the broader needs of the public. To do so in a technically competent way and consistent with public demand will require new skills and still more planning and coordination by the Forest Service.

We urge this committee to help the Forest Service to tighten its regulations, add staff, and adapt alternative forms of forest management that will set the stage for management of our public forests in the 21st Century.

Senator **Fowler**. Last, but not least, Mr. John Godbee, environmental specialist, Technical Services Woodlands Division, of Union Camp Corporation.

STATEMENT OF JOHN F. GODBEE, WOODLANDS TECHNICAL, ENVIRONMENTAL SPECIALIST, TECHNICAL SERVICES WOODLANDS DIVISION, UNION CAMP CORPORATION, SAVANNAH, GA

Mr. **Godbee**. Thank you, Mr. Chairman.

INTRODUCTION

Good morning. My name is John Godbee. I am here today representing both my company, the Union Camp Corporation, and the American Forest Council.

BIOLOGICAL DIVERSITY—A NEW TEAM FOR THE LONG-STANDING FOUNDATION OF EFFECTIVE FOREST MANAGEMENT

Union Camp, the forest products industry, and the Forest Service are committed to conserving biological diversity. Conserving biological diversity has long been a key component of forest management. The current elevation of the issue in the public arena offers both public and private forest managers the opportunity to demonstrate how our natural resources are managed for multiple benefits.

FOREST MANAGEMENT IS COMPATIBLE WITH THE CONSERVATION OF BIOLOGICAL DIVERSITY

At the genetic level, understanding and protecting genetic quality is a cornerstone of the forest products industry's many forest improvement and reforestation regeneration programs.

At the ecosystem level, we believe sound forest management is the land use that is most compatible with preserving the conservation of biological diversity.

We think the effective conservation of biological diversity does not mean simply withdrawing land from management and attempting to prevent all changes. However, the Forest Service and the forest products industry recognizes that some lands are truly unique.

Union Camp's Land Legacy Program has identified the best examples of unique forest ecosystems and has donated or provided through low cost or bargain sales over 100,000 acres of land for long-term protection. Specifically, Union Camp donated more than 20,000 acres of wetlands which now comprise a major portion of the Okefenokee National Wildlife Refuge in Georgia. There are hundreds of other examples in the public and private sector of donations and cooperation by private forest landowners across the Nation.

SUFFICIENT LEGISLATION EXISTS TO CONSERVE THIS NATION'S BIOLOGICAL DIVERSITY

Until the red-cockaded woodpecker was seized upon by preservationists as a surrogate issue for prohibiting even-aged timber harvesting on the national forests, the bird was an excellent example of how the effectiveness of the Endangered Species Act—a testimony to how government agencies and private landowners, working through legislative directives, could work together to attempt to save a species and conserve biological diversity.

The preservationists have just recently won a permanent injunction from a U.S. District Court in Texas which severely limits the Forest Service's ability to intensively manage around a red-cockaded woodpecker colony.

Decisions such as this severely threaten land management activities throughout the South. I think one of our earlier speakers addressed that this morning.

They also affect our ability to control the destructive effects of the southern pine beetle. The survival of the red-cockaded woodpecker depends on relatively intensive management. In fact, the U.S. Fish and Wildlife Service has concluded that the Court's action in Texas may have jeopardized the bird. By their very actions, the Texas preservationists may have doomed the red-cockaded woodpecker to extinction.

Beyond the Endangered Species Act, many laws and programs which provide the means to enhance biological diversity are not implemented to the extent possible because they are not fully funded.

BIOLOGICAL DIVERSITY MAY BE THE PRESERVATIONIST'S NEW SURROGATE FOR LAND WITHDRAWALS

Economists are predicting that demand for wood products in the United States will increase by 50 percent over the next five decades. During the same period world demand is expected to double. Therefore, land withdrawals do not represent a reasonable long-term solution to conserving biological diversity. Another approach is needed—working toward improving the integration of forest harvesting techniques and management with other biological values provides a reasonable solution.

THE FOREST PRODUCTS INDUSTRY SUPPORTS EFFORTS TO REACH CONSENSUS ON BIOLOGICAL DIVERSITY ISSUES

We, in the industry, believe that consensus must be reached on issues surrounding biological diversity by a variety of interest groups and organizations. Currently, the forest products industry is participating in a national dialog on biological diversity which is being facilitated by the Keystone Center.

Most experts, we believe, would agree that the real need for conservation of biological diversity is strongest in developing nations. This country must set an example by demonstrating how to preserve biological diversity in a manner and fashion which is suitable for them.

THE FOREST PRODUCTS INDUSTRY SUPPORTS EFFORTS TO CONSERVE BIOLOGICAL DIVERSITY

We support efforts to better define what is needed by way of additional knowledge and policy direction to assure the conservation of biological diversity in a fashion that is consistent with other national priorities. Consequently, we are in favor of and are actively participating in the national dialog on biological diversity.

We believe the official legislation exists as there are currently 28 Federal laws relating to the conservation of biological diversity.

In order to improve the conservation of biological diversity while the national dialog is in progress we suggest this committee pursue the following:

First, help provide Federal agencies the resources they require to implement existing laws and programs;

Second, promote demonstrations applicable to the goals of developing nations such as environmentally sound harvesting projects on the Caribbean National Forest;

Third, increase domestic awareness through educational programs;

Fourth, initiate international dialogs to promote global conservation; and

Fifth, encourage research on biological diversity by supporting programs such as U.S. Forest Service research.

Thank you, Mr. Chairman.

[The prepared statement and letter dated November 10, 1989, of Mr. Godbee follow:]

AMERICAN FOREST COUNCIL

STATEMENT OF
JOHN GODBEE
ENVIRONMENTAL SPECIALIST
UNION CAMP CORPORATION

BEFORE THE SUBCOMMITTEE ON
CONSERVATION AND FORESTRY
SENATE COMMITTEE ON AGRICULTURE
ATLANTA, GEORGIA
OCTOBER 30, 1989

Good morning. It is a pleasure to be invited here today to testify on the issues of biological diversity and the Red-cockaded Woodpecker. My name is John Godbee. I am the Woodlands Environmental Specialist for Union Camp Corporation. I am here today representing both my company and the American Forest Council.

Union Camp is a large diverse forest products company. We own and manage approximately 1.7 million acres of forest land in the South, including substantial holdings in Georgia. In the United States, Union Camp has operations from Florida to Maine. Outside of the U.S., we have interests in 23 different countries and five continents.

The American Forest Council is jointly sponsored by the American Paper Institute and the National Forest Products Association. Together, these associations represent more than 2,500 companies throughout the United States engaged in growing and harvesting timber.

I. Biological Diversity -- A New Term For The Long-Standing Foundation Of Effective Forest Management.

Union Camp, the forest products industry, and the Forest Service are committed to conserving biological diversity. Conserving biological diversity has long been a key component of forest management. It is a relatively new term for what forest management must incorporate to ensure long-term productive forest resources. The current elevation of the issue in the public arena offers both public and private forest managers the opportunity to demonstrate how our natural resources are managed for multiple benefits.

II. Forest Management Is Compatible With the Conservation Of Biological Diversity.

At the genetic level, understanding and protecting genetic quality is a cornerstone of the forest products industry's many forest improvement and reforestation programs. The forest products industry and the Forest Service are involved in numerous national and international cooperatives to improve our knowledge of genetic composition. Modern forest managers understand the importance of maintaining a diverse genetic pool to assure a viable population.

At the ecosystem level, we believe sound forest management is the land use that is most compatible with the conservation of biological diversity. Active forest management ensures a mosaic of age classes which promotes a tremendous diversity of plant and wildlife species. On Union Camp's 1.7 million acres we maintain a broad distribution of forest age classes and tree species. In addition, streamside zones, wetlands, and natural ponds within our managed forests are afforded special management attention to ensure that our practices are compatible.

It is the policy of Union Camp to "provide a variety of habitats essential to wildlife including game, non-game, threatened and endangered species, thus providing opportunities for recreation activities and other amenity values." While we at Union Camp are very proud of our management programs, we are not unique. Similar policies are practiced throughout the United States on both private and public forest lands.

Since passage of NFMA many different views of what Congress intended in its diversity language have been aired. The diversity provision grew out of concerns in the 1970's over forest type conversions. The Forest Service promulgated regulations first in 1979, and then included amendments in 1982 to implement the NFMA requirements. Their were no challenges to the Forest Service proposals in 1979 or 1982. The Forest Service chose to implement NFMA's diversity provision through regulations which outline three management directives: (1) maintain viable populations of vertebrate species through habitat management; (2) measure the effects of management on forest ecology through indicator species; and (3) inventory and monitor wildlife resources.

The regulatory emphasis is on protection of diversity consistent with multiple-use objectives. We believe this is the correct and most effective approach to implementing NFMA's diversity provision.

Effective conservation of biological diversity does not mean simply withdrawing land from management and attempting to prevent all changes. However, the forest products industry recognizes that some lands are truly unique. This recognition has prompted the forest products industry to work extensively with state natural heritage programs, the Nature Conservancy, and many other organizations and agencies to identify and ensure protection of the best and most significant sites.

Union Camp's Land Legacy Program has identified the best examples of unique forest ecosystems and has donated or provided through bargain sales over 100,000 acres of land for long-term protection. Specifically, Union Camp donated more than 20,000 acres of wetlands which now comprise a major portion of the Okefenokee National Wildlife Refuge in Georgia. Hundreds of other examples of private donations and cooperation by private forest landowners are found across the nation.

On private lands, where the landowner may be looking for a financial return on investment, forest management represents a preferred economic land use for conserving biological diversity. On national forests, where the public demands multiple benefits, guided by the Multiple-Use Act and NFMA, timber production is clearly designed to conserve, maintain, or enhance biological diversity.

III. Sufficient Legislation Exists To Conserve This Nation's Biological Diversity.

According to the 1987 Office of Technology Assessment (OTA) report entitled, "Technologies to Maintain Biological Diversity," there are currently 28 federal laws relating to the conservation of biological diversity. It is important to note that this OTA list does not include those federal laws relating to restoration of biological diversity such as the revegetation provision of the Surface Mining Control and Reclamation Act (Public Law 95-87), or the conservation reserve provision of the Food Security Act of 1985 (Public Law 99-198).

Until the Red-cockaded Woodpecker (RCW) was seized by the preservationists as a surrogate for prohibiting evenaged timber management in the South, the bird was an excellent example of the effectiveness of the Endangered Species Act (ESA) -- a testimony to how government agencies and private landowners, following legislative directives, could work together to attempt to save a species and conserve biological diversity. The RCW was listed as endangered in the early 1970's. A recovery plan, required by the ESA, was developed by the Fish and Wildlife Service. The Forest Service, through its land management planning process, fully incorporated the RCW recovery plan into each of its forest plans. Public participation is key to the land management planning process -- worth noting in this case is the fact that the preservationists did not raise the RCW as an issue during this process except in one National Forest in Texas.

Over the past several years the Forest Service has implemented the RCW recovery plan through its land management plan guidelines. During the same period the forest products industry has complied with the Endangered Species Act in protecting the RCW. For example, Union Camp provides training for all of its foresters in the identification of cavity trees. On our lands cavity trees are identified then clearly marked, and the surrounding habitat managed appropriately.

The preservationists have just recently decided to get involved in the process. They have won a permanent injunction from a U.S. District Court in Texas which severely limits the Forest Service's ability to intensively manage around a RCW colony. While this court decision is still under appeal, the preservationists have threatened to bring a similar suit against forest management in the remainder of Region 8.

Decisions, such as that in Texas, severely threaten land management activities throughout the South, including controlling the destructive effects of the Southern Pine Beetle. The survival of the RCW depends on relatively intensive management. In fact, U.S. Fish and Wildlife Service has concluded that the Court's action in Texas has jeopardized the RCW. By their action in Texas the preservationists may have doomed the RCW to extinction.

Beyond the Endangered Species Act, many laws and programs which provide the means to enhance biological diversity are not implemented to the extent possible because they are not fully funded. The National Fish and Wildlife Act, known as the Nongame Act, is such an example. The American public must identify conservation of biological diversity as a national priority first by funding the programs which are in place.

IV. Biological Diversity May Be The Preservationist's New Surrogate For Land Withdrawals.

Economists are predicting that demand for wood products in the United States will increase by 50% over the next five decades. During the same period world demand is expected to double. Therefore, land withdrawals do not represent a reasonable long-term solution to conserving biological diversity. Another approach is needed – working towards improving the integration of forest harvesting techniques with other biological values provides a reasonable solution.

V. The Forest Products Industry Supports Efforts To Reach Consensus On Biological Diversity Issues

The forest products industry believes that consensus must be reached on issues surrounding biological diversity by a variety of interest groups and organizations. Currently, the forest products industry is participating in a national dialogue on biological diversity.

The intent of the dialogue is to build consensus in three areas: (1) a biological diversity definition; (2) research and data needs; and (3) recommendations for a coordinated national effort to conserve biological diversity.

The Keystone Center, a national non-profit science and public policy and educational organization located in Colorado, is facilitating the national dialogue. The Forest Service initiated the effort during the spring of 1988. Agreement was reached during the fall of 1988 to move forward. The national dialogue on biological diversity began in March of 1989 and will conclude in mid-1990 with a consensus document. The Keystone Center has a successful track record of facilitating consensus on complex and controversial issues, leading to recommendations for regulatory, operational, and other public policy initiatives.

The dialogue includes approximately fifty participants; five government agencies (Bureau of Land Management, Department of Defense, Fish and Wildlife Service, Forest Service, and Park Service), Congressional staff, commodity interests, environmental and preservation groups, and academia. As part of the dialogue process, each participating federal agency will document all laws, regulations and policies which provide direction on conserving biological diversity.

VI. Better Coordination Is Necessary In Order To Realize The Full Potential Of Existing Legislation.

There are nearly 400 million acres of public land currently under Federal ecosystem conservation programs. This enormous land base is controlled by several agencies under numerous and diverse systems and philosophies; each has the necessary legislated tools to be successful in conserving biological diversity. The Keystone national dialogue is the appropriate method to produce recommendations for a coordinated national effort.

The dialogue represents a timely, appropriate, and responsible approach to enhance the conservation of biological diversity.

VII. Biological Diversity Research Is A High Priority.

The U.S. Forest Service has appropriately identified the need to expand ongoing research and to initiate new studies leading to better understanding of ecosystem fragility and resiliency. This research is a high priority in the proposed 1991 budget. We believe that forest environment research funds should be directed primarily to long-term studies of major forest ecosystems, integrating silviculture and wildlife habitat management. A key to conserving biological diversity is understanding ecological relationships. The U.S. Forest Service and other Federal agencies have the necessary scientific network in place to improve this understanding.

VIII. Forest Management Activities In The United States Are The Most Environmentally Sensitive In The Word.

Biological diversity is a concept which is threaded throughout the laws, regulations, and programs at the federal, state, and private level in the United States. More importantly, conservation of biological diversity is effectively practiced in forest management activities throughout the country. Most experts, we believe, would agree that the real need for conservation of biological diversity is strongest in developing nations.

We recognize that domestic actions may directly affect our ability to influence actions of other countries. This country must set an example for developing nations by demonstrating how to conserve biological diversity in a fashion which is useful to them. We will not be effective with developing countries if we preach about the value of setting aside lands. Forest management throughout the United States demonstrates how, through best management practices, temperate forests can be harvested while conserving biological diversity.

However, to date we have not provided developing countries with useful demonstrations on how to manage tropical forests to both elevate their standard of living and conserve biological diversity.

IX. The Forest Products Industry Supports Efforts To Conserve Biological Diversity.

We support efforts to better define what is needed by way of additional knowledge and policy direction to assure the conservation of biological diversity in a fashion that is consistent with other national priorities. Consequently, we are in favor of and are actively participating in the national dialogue on biological diversity.

In order to improve the conservation of biological diversity while the national dialogue is in progress we suggest this committee pursue the following: (1) help provide federal agencies the resources they require to implement existing laws and programs; (2) promote demonstrations applicable to the goals of developing nations such as environmentally sound harvesting projects on the Caribbean National Forest; (3) increase domestic awareness through educational programs; (4) initiate international dialogues to promote global conservation; and (5) encourage research on biological diversity by supporting programs such as U.S. Forest Service Research.

Thank you. I will be glad to respond to any questions.

Union Camp

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November 10, 1989

TY/
into Record

Honorable Wyche Fowler
320 Hart Senate Office Bldg.
Washington, DC 20510

Dear Senator Fowler:

Thank you for the opportunity to testify before your Senate Agriculture Subcommittee on Forestry on October 30. Public input is essential for the development of balanced policies for managing our Nation's Forests.

As I stated at the hearing, we support the multiple use concept for National Forests. Active forest management, including road construction and harvesting, is compatible with this concept and the preservation of biological diversity. Sound silvicultural management, including harvesting of selective stands, provides the broad continuum of age classes and tree species essential for many wildlife species.

In the hearing, many expressed concern on the practice of below cost timber sales. This concern is being used as a surrogate for the larger issue - Should we continue harvesting activities on the National Forests?

I believe we not only should, but must if we are to meet the Nation's demands for current and future fiber supply. As a whole, timber sales from National Forests provide positive revenue to the Nation's treasury. To the best of my knowledge, timber and mining are the only uses of public lands which provide a positive cash flow directly to the government.

This does not mean that every sale is or should provide positive returns. The Forest Service is mandated by Congress to manage for multiple use. This requirement forces the Service to design patchwork harvesting plans which cannot take full advantage of the road systems. Roads are constructed to access small, dispersed and remote harvesting chances. This results in the cost of road construction per mile being charged against smaller volumes of wood.

The Forest Service could manage our National Forests in a manner which would assure a positive return from timber harvesting. In many cases, this would require increased roads, larger clearcuts, shorter rotations and the removal of far more volume than is being proposed in Forest Service Plans. This type of management would not meet multiple use objectives and would be unacceptable to most of us.

One of the primary problems in below cost timber sales is the current method of allocation of road costs. Forest Service roads are themselves multiple use roads. They are constructed primarily for harvesting access. However, they are used by campers, hikers, fishermen, hunters and those of us that just enjoy riding through and observing the natural beauty of our forest and wildlife. Having camped, hiked and hunted on our National Forests from Maine to Florida and west to the Rockies, I speak from experience in saying in every case - access depended on a well developed road system. There are no provisions in the present allocation system which allow recreation and other uses to share in the costs of road construction.

The Forest Service is being criticized by all sides for mismanagement of our National Forests. No one is completely satisfied with what they are doing, but we all want what they have done. The Forest Service acquired cutover lands that nobody wanted and through sound silvicultural management, created forests of increasing beauty and wealth. They accomplished this through an understanding of the need to harvest and regenerate stands that have reached maturity. There was also the recognition of the economic contributions to society and the need for a dependable fiber supply.

Future policies must recognize these contributions. There are currently over 90 million acres of wilderness in the United States. Less than one half of the lands currently managed by the Forest Service are available for timber harvest. Given the need for future fiber supply and the recognition that United States timber harvesting practices are the most environmentally sensitive in the world, **the withdrawal of additional acres from timber production does not make sense**.

In order to meet the timber demands of the future, it is imperative that we continue in the active management of our forest lands and the development of sound forest management practices. Good forest management provides clean water, wildlife and recreation while contributing to the Nation's fiber needs.

Again, thank you for the opportunity to comment.

Sincerely,

John F. Godbee
Woodlands Technical

JFG51

Senator FOWLER. Thank you, Mr. Godbee.

I wish to thank you all for your very helpful and thoughtful presentations.

Since everybody brought up the woodpecker, I guess, Mr. Alcock, I ought to get the Forest Service view here.

How has the woodpecker situation affected the timber sales for your region?

Mr. ALCOCK. We have had to go back and modify a number of existing timber sales under contract, about 65 of those, during the last few months.

We lost about 20 percent in the volume that was originally contained under those contracts.

Looking to the future, we cannot at this point quantify what the effect of new requirements out on the ground for the woodpecker is going to have on our long-range ability to supply timber. We believe there will be a fairly significant effect but we just, we feel we don't know yet, is the only answer I can give you because the rules and guidelines we will be operating under in the future are still under development.

Senator FOWLER. Well, at present, and I am asking, I don't know, do you find 20 percent of the 65 contracts as significant, to use your word?

Mr. ALCOCK. Yes, sir, there was a significant amount involved and we felt that we had to take action under existing contracts because we had newly presented information to us that some of our populations of woodpeckers were in decline and in small populations, where that is the case, we felt that it was better to err on the side of the endangered species, so we did take the action.

Senator FOWLER. You have heard most of these gentlemen, in fact, I think all of them called for increased funding for research and by extension of wildlife habitat, in what, in your region, in what areas specifically do we need to increase funds for the protection of wildlife habitat?

Mr. ALCOCK. There is a need for a great deal more research. We have 80 endangered species just in our region. I guess that is the most in any area in the country and there is just a lot that we do not know about the habitat requirements, things like how adaptable these animals really are when they are under stress such as Hurricane Hugo, and just a great deal more.

This is a an example of research (indicating), it doesn't look like much, but this may have a lot to do with whether or not the woodpecker population of South Carolina survives Hugo. This has been developed by our research folks. I call them a one-bedroom condo.

Senator FOWLER. What would the woodpecker call them?

Mr. ALCOCK. What would the woodpecker call them? I don't know, but he seems to like this and it wasn't easy to find something they did like and so, that's the kind of thing that we are going to have to have, not just artificial nests, but just a great deal of knowledge about these animals if we are going to be successful in recovering them and managing them in the future.

Senator FOWLER. Dr. Boring, in your judgment, does the Forest Service work well with State and other Federal agencies in this area of certain wildlife habitat?

Dr. **Boring**. Certainly, from the perspective of research, about which I can speak pretty authoritatively. They do a very good job. I am involved in some research with Forest Service scientists, myself, and some researchers in the Forest Experiment Station are farsighted in identifying problems and pioneering work on management of biodiversity.

Senator **Fowler**. In your opinion should we, and you have been in here I am sure all morning, should we as a public policy decision put more emphasis on wilderness designated lands in our national forests for the sake of wildlife?

Dr. **Boring**. I think the sword can swing both ways, Senator. I think that we could designate more wilderness areas, and they would serve to maintain old-growth habitat, but it would be predominately old growth, and exclude many early successional areas. So there could be potential tradeoffs, such as loss of edge effect, wildlife openings, et cetera. What we need are early successional and old-growth mixes. I think we narrow our options for biological diversity when we designate land as wilderness. Of course, we have still heard a very compelling argument for increased recreation lands today. It is not a simple question.

Senator **Fowler**. How do you narrow your options, except for obviously not cutting, is there any other options?

Dr. **Boring**. For the wildlife habitat specifically?

Senator **Fowler**. Uh-huh. Well, just the use of the land.

Dr. **Boring**. I think there could be other designations such as wildlife management areas, for instance, within some of the national forest units.

Senator **Fowler**. Without designated roads?

Dr. **Boring**. Sure, but there are compelling arguments made for the other, I think, as we have heard.

Senator **Fowler**. How do you respond to that, Dr. Rosen?

Dr. **Rosen**. You mentioned earlier the need for increased multiple uses on the forests. If we look at each national forest in its entirety as an area of multiple use, wilderness is a specialized use. There are certain management alternatives for wildlife that one is not able to perform on a wilderness area, so there does need to be a mix of management options, including considerable wilderness management.

One of the problems we have in the Southeastern States with wildernesses is that most of the wilderness areas are a little bit too small, in some cases very much too small, to provide for the full ecosystem needed to provide for natural biodiversity. Many of these areas are just too small to operate, for example, as a major old-growth ecosystem in the Northwest Pacific area might function. We have chopped and fragmented the Southeast so much so that in some cases, wilderness areas cannot function as entire ecosystems. We believe that there is certainly a place for wilderness, perhaps even increasing amounts of wilderness, but we do need a mix of management options if we are talking about wildlife management.

The red-cockaded woodpecker, for example, requires removal of hardwood undergrowth. The understory vegetation needs to be removed in red-cockaded woodpecker stands if we are to expect the species to survive. So, even in the case of the red-cockaded woodpecker, in some areas, some level of active management which includes the removal of some wood is necessary to provide for the survival of the species.

Senator **Fowler**. Mr. Alcock, what about the black bears, is there any reevaluation, reassessment by the Service that, in dealing with something as migratory as bears are, that we can look at, forest by forest, in your management plan, and you have to look at the whole three or four State area if the bear, for instance, is going to be protected?

Mr. **Alcock**. Yes, there is a need to look beyond just the very localized areas when we are talking about our species such as the black bear. Traditionally, the Great Smokies National Park has been thought of as kind of the breeding ground for the black bear and that is where bear have tended to multiply within the forest and then move out onto adjacent land.

What we have seen in recent years and these figures are not just ours, but those that come from all of the State fish and game departments that we cooperate with, we are seeing a sizable increase in the black bear population. The areas are moving roughly about 10 percent a year over the last 10 years and about the same way on the Cherokee in Tennessee, so there is a good healthy bear population out there now. We feel that the habitat will bear it both within the national park and on the national forests and is very suitable for additional growth in the black bear population.

There is a significant problem of poaching black bear here in the South, and we did just break up, through a sting operation here not too long ago, a number of people who had killed a lot of black bears for various reasons and so——

Senator **Fowler**. You say you did break it up?

Mr. **Alcock**. Yes, sir, they did and they convicted many people who were involved in a fairly extensive practice of poaching black bear.

We worked very closely, we have some people on our staff that I think are very expert in the business of managing black bear habitat and they do work very closely with people like Dr. Pelton at the University of Tennessee, who is possibly one of the better experts in the area of black bear management.

Senator **Fowler**. Just a second here.

[Brief pause.]

I do want to get on the record and just to the attention of everybody here, Mr. Alcock. How do you respond to the criticism of The Wilderness Society, specifically, and maybe the Wildlife Federation, I don't know, I will let Dr. Rosen speak for himself, that the Service is—I am trying to use the Management Indicator Species Program. The criticism is basically your Management Indicator Species Program chooses the wrong species and that rather than looking at bears and mountain lions, you look at squirrels and deer and those species that is so adaptive to change that their population numbers reflect very little about the actual condition of the environment. Tell me whether the Service is really looking at that or whether you have your backs up?

Mr. **Alcock**. No, sir, we do not have our back up. The indicator species, the concept of doing that, it was developed by the Forest Service Research again, and it was done and it was on a sampling basis, recognizing that we did not have the resources to monitor the population of every animal and critter out there, so in a finding process, we did identify indicator species. They vary from forest to forest. It is true that out of some forests, there is probably too much emphasis on game animals and not enough on song birds and other lesser animals.

We are attempting to correct that as we go along. I am sure in the next round of planning, we will be a lot more sophisticated in what indicator species we select on each national forest and hopefully we will have the resources to be able to monitor what's happening to those populations.

It is not a real easy thing. We can make a lot of guesses about these populations, but the actual census work is extensive, it takes a lot of work.

Senator FOWLER. Yes?

Dr. BORING. One comment on that.

Senator FOWLER. As to whether or not, it is kind on the fact that as a researcher, an ecologist and a scientist, whether or not they are picking the right species.

Dr. BORING. I think that one statement you make is very relevant here, in that their resource centers on what they can do within the context of their research program. I think these programs have gotten the low end of resource allocation, not just within the Forest Service but from the Government, with due respect, on congressional funding and administrative funding.

We are seeing a lot of research money being spent upon molecular genetics, biochemistry, and other space age research, but we do not have the research dollars going in the direction necessary for researchers to answer questions about biological diversity. This is necessary to give these forest managers the information they need to maintain habitats and to maintain species. I see that as one of the major bottlenecks. We can always do a better job as researchers, but we are very research limited, since this work is expensive.

Senator FOWLER. Mr. Godbee, I haven't ignored you. I listened to your testimony very carefully. I am saving you until last just for a minute.

These figures that you quoted in your testimony about 50 percent increase in the need for timber and timber products. Where should that come from?

Mr. GODBEE. The Resource Planning Assessment that the U.S. Forest Service put out, Resource Planning Assessment.

Senator FOWLER. No, I understand where the figures came from, but where does the timber come from?

Mr. GODBEE. I think the timber is going to have to come from public land and private land.

Senator FOWLER. If the Japanese want to build a lot more houses, we ought to cut out public lands to——

Mr. GODBEE. I think that 50 percent increase is domestic increase, Senator. We also have a worldwide doubling and we can't deny the fact that people want to raise their standards of living. We have to accept that and we have to work around it. People are part of the whole biological diversity issue, we are part of the diversity. We have to be worked into the program.

The private landowner, the assessments, the Resource Planning Act, projected that the private landowner would have more than double the timber supply off of his land to meet these needs and, Senator, that is not realistic. It is not going to happen. We are going to either continue to provide some dollars, and I am not—excuse me, not dollars but timber supply from public lands, the majority of it is still coming from private lands, industry lands, they own 14 percent of the timberlands in the United States, they provide 30 percent of the volume, more or less, we are still going to provide that. The U.S. demand is going to be there whether we produce it internally or offshore. We can go back to Canada or we can contribute to the tropical deforestation.

Our import, our dollars, we drive world economy. We have to recognize that.

Senator FOWLER. I don't know whether I agree with that, but I don't know.

Mr. GODBEE. Well, we all agree on certain issues and disagree on other issues. I think the thing——

Senator FOWLER. The United States used to be, right after the war, I was just looking at these the other day, right after the war, we were 78 percent of the total world economy. Around the 1950's, we became sort of 50 percent of the total world economy. The last figures, last year, we are now 22 percent of the total world economy in the United States.

Mr. GODBEE. We are still the single largest, are we not?

Senator FOWLER. Well, we will be until 1992 when the Europeans get together and then, unfortunately—I hope you are not going to have a great psychological let down, but we will then officially be the No. 2 economy in the world. I am not sure anybody is ready for that to happen.

You heard my discussion on capital gains. Has that hurt our private timber plans? Do you anticipate that unless that treatment is restored that we will be planting less in the future?

Mr. GODBEE. Sir, it has hurt the future timber supply. The private landowner makes the majority of his decisions to manage his lands cutting timber, based on a need where it is paying off a farm debt, where it is sending the kids to college or whatever. When they have to cut their timber to meet that need, the loss of 10 percent of that revenue is very important, and it is the loss that does not go toward reforestation. Capital gains will increase the percentage of private lands that are put back in this country. Yes, sir. I am convinced of that.

Senator FOWLER. Well, you know, what I don't understand, and you are as good a person to tell as anybody is I introduced the capital gains differential tax bill[4] for timber and had hearings[5] around the country with nothing but private folks, none of the big companies, we had private nonindustrial users, we had four hearings, for 6 months I never heard from a soul, no lobbyists, not anybody and, you know, I have about come to the conclusion that the reason was they were busy with the owls and the woodpeckers, but I can understand, it seems to me the issue is not whether the owl or the woodpecker should have a home in the public forests, but how the private sector, how we can be providing more timber from the private sector and receive a better tax break for that timber to encourage more plantings. You wouldn't disagree with that, would you?

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[4] S. 1238, to amend the Internal Revenue Code of 1986 to restore capital gains treatment for timber, and for other purposes.

[5] See hearings: Tax Issues Affecting the Timber Industry, Macon, GA, Mar. 13, 1989 (S. Hrg. 101-63); Appeals Process Used by the Forest Service, USDA, May 18, 1989 (S. Hrg. 101-756); Review the Sustainability of Forest Resources, June 21, 1989 (S. Hrg. 101-851); Joint Hearing on U.S. Wood Products Competitiveness: Timber, Taxes, and Trade, July 8, 1989, Portland, OR, (Serial No. 101-15); and Joint Oversight Hearing on the National Forest Planning Process as Provided in the National Forest Management Act of 1976, Oct. 25, 1989 (S. Hrg. 101-553).

Mr. GODBEE. Not at all. I think we need both. I think we recognize that we need both. We need to encourage the private landowner. We need to provide a place for these fragile ecosystems. We need to provide a place for the spotted owl, the endangered species, we need to for the red-cockaded woodpecker. We don't need to make that the sole objective of management, and that is where multiple-use benefits come in. We have to recognize that there are many uses and there always have been many uses. We are not always smart enough and that is why we are asking for more dollars to support research of biological diversity.

Senator FOWLER. Well, I have put a lot of money in my amendment for private forestry and research efforts, but we lost that battle for this year.

There were several foresters who told me during the break that, I believe it is just what we have here in Georgia, 33 percent more cuttings and plantings on private lands. Now we can't, you know, we can't keep that up.

Mr. GODBEE. That's right. It's frightening.

Senator FOWLER. What would you suggest, on private land, what should the policy be, if you turn that around and at least make it sustainable, being that we don't cut anymore than we plant?

Mr. GODBEE. Sir, I am not in favor of land-use planning which would require a private landowner to manage his land in a manner for the public, with some exceptions. I do think that when we give benefits such as capital gains, that we can link capital gains to a reforestation provision. I think we can use public policy and public benefits to guide the process, but I do not believe we can force him to spend his dollars to make a long-term investment that he may or may not be able to afford to do, and in all likelihood, he will never see a return himself, but must depend on that return coming to the children. That is the difference between the corporation and the private landowner, and it is that Union Camp lives forever, but I don't and when I make an investment for Union Camp, we are going to see a return for Union Camp. When I make it for John Godbee in my private forest, I will not in all likelihood live to reap the rewards. My children will. We have to plan for the future. We have to accept that. Forestry is a tough goal to sell in the public arena.

Senator FOWLER. I know that.

But do tell my friends at Union Camp I have been trying to help the private forester but I don't feel like I have got a lot of help from them to help me help them, but we ought to be able to restore, at least that is my understanding.

Mr. GODBEE. Yes, sir, we agree.

Senator **Fowler**. On the capital gains, in order to reverse what we now can document and that is alarmingly increased cuttings for soft wood.

Mr. **Alcock**. Mr. Chairman, I think you have your finger on how complex this problem is with trying to induce the private nonindustrial forest landowner to make a long-term commitment to produce a crop of timber and it requires a number of different approaches to reach a million different kinds of landowners, and you put your finger on one of the most powerful, I believe, and that is the relief from capital gains, as long as that is not done within a specific time constraint which would force landowners to liquidate timber too quickly. You are aware of the stewardship program that the State foresters have put together. I believe that is a good approach because that deals with those landowners whose timber management, or whose land management objectives may not be just timber, but includes fish and wildlife and other things. The same way with the Conservation Reserve Program, that has touched a certain number of landowners and induced them to plant trees. I think all of these tools are necessary.

Senator **Fowler**. Thank you, Mr. Alcock.

Gentlemen, thank you, very much.

Yes, Dr. Rosen.

Dr. **Rosen**. Mr. Chairman, I would like to address something that has come up and that is the hardship that has been discussed as a result of imposition of an injunction on timber harvest surrounding red-cockaded woodpecker colonies and an interim policy and then development of the final management plan for woodpeckers which is underway.

Mr. Chairman, the only action that the Forest Service has taken is really a very conservative action to place a temporary halt on sales in these sites as the Forest Service reevaluates this management further. It effects relatively few acres of timberland in the allowable timber base, and in the interim the Forest Service could shift its sales to other areas so that none of the parties suffer, neither the timber industry, nor the bird.

Mr. Chairman, we think this is a reasonable approach. Technically, it's a very conservative approach, and we believe that no parties should be impacted as a result of this during the interim. The long-term effects will be known better when the final management plan, the draft management plan is issued. We can take a look at that at that time, but in the interim, the approach is conservative and really shouldn't have an appreciable effect.

Senator **Fowler**. Chief Robertson, since you are still here, could I ask you to come back up for a moment.

Thank you, gentlemen, we appreciate very much, again, for your thoroughness in your testimony, all of which will be made a part of, included as a part the record.

[Letter and attached article, "Maintaining Biotic Diversity in National Forests: The Necessity for Large Blocks of Mature Forest," of Walter Kuhlmann of Boardman, Suhr, Curry & Field, and the prepared statement of H. Reed Farris follow:]

Editor's note.—Appellants' Reply, Appeal No. 89-09-00-002 is retained in the subcommittee file.

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October 26, 1989

VIA FEDERAL EXPRESS

The Honorable Wyche Fowler, Jr.
United States Senate
Russell 204
Washington, DC 20510

ATTN: Mr. Ben Yarbrough

RE: Failure of the Forest Service to preserve and enhance biological diversity

Dear Senator Fowler:

This letter is written for purposes of inclusion in the record of the hearing of the Subcommittee on Conservation and Forestry, Committee on Agriculture, Nutrition and Forestry, being held October 30, 1989 in Atlanta. I am submitting these comments on behalf of my clients, the Sierra Club, John Muir (Wisconsin) Chapter, and the Wisconsin Forest Conservation Task Force, both of whom, in conjunction with the Wisconsin Audubon Council and The Wilderness Society, have appealed the two Land and Resource Management Plans for the Nicolet and Chequamegon National Forests, located in Wisconsin. The principal ground for appeal of both Plans is their failure to address the statutory mandate that the Forest Service in its Forest Plans provide for diversity of plant and animal communities.

My clients are uniquely qualified to comment on the failure of the Forest Service to apply basic principles of biology, and fundamental perspectives of ecology, to the management of the National Forests. The Task Force consists of a number of botanists at the University of Wisconsin who have studied firsthand the two Wisconsin National Forests, and who have observed the continuing fragmentation of those lands and the resulting deterioration of viable populations of a number of species now represented in the North Woods largely by older generations, with impaired ability to propagate while under the relentless attack of ubiquitous road construction, timber extraction, and managed wildlife openings.

While local school children are mounting campaigns to save the tropical rain forests, and are using the term "biological diversity" as the centerpiece of that discussion, the Forest Service ignores this issue at home, trying to find various ways to give the public appearance of addressing the biological effects of its policies of forest fragmentation, but in reality lacking even rudimentary understanding of or, more importantly, any institutional will to deal with, the ecological impact of its Forest Plans.

The Forest Service calls biological diversity "an emerging issue" and asks us to wait for more policy development by "consensus" groups it has asked be assembled (e.g. the Keystone process). Yet the elected consensus-makers, the U.S. Congress, expressed great disappointment at the failure of the Forest Service to deal with the ecological costs of its policies during the drafting of the National Forest Management Act (NFMA) in 1976. At that time, the late Senator Humphrey expressed the view that the principal legislation then governing the Forest Service, the Multiple-Use Sustained-Yield Act of 1960 (MUSY) had been a failure. Congressional concern over this issue is described in an excellent summary of the history of NFMA, "Land and Resource Planning in the National Forests" 64 Oregon Law Review 1, at 69 et seq. (1985).

> Upon introducing his bill, Humphrey observed that the MUSY Act had not succeeded and that a 'fundamental reform' was needed. ... He identified the cental problem as the predominance of timber production over protection of other resources. Humphrey declared:
>
>> The days have ended when the forest may be viewed only as trees and trees viewed only as timber. The soil and the water, the grasses and the shrubs, the fish and the wildlife, and the beauty that is the forest must become integral parts of resource managers' thinking and actions. [Footnotes omitted]

Acting upon such concerns, the National Forest Management Act (NFMA) calls for the Forest Plans to:

> "... provide for diversity of plant and animal communities...." [16 U.S.C. §1604(g)(3)(B)]

and the supporting regulations state:

> "Management prescriptions, where appropriate and to the extent practicable, shall preserve and enhance the

> **diversity of plant and animal communities.... so that it is at least as great as that which would be expected in a natural forest..."** [36 C.F.R. §219.27(g)]

Yet these appellants have been shocked at the paucity of scientific input into the Forest Plans. In our four or more years of debating this issue with the Forest Service (at all levels), it is apparent that the Research branch of the Forest Service has no effective input into management policies. Although there is ample literature on the effects of fragmentation, destruction of interior habitats, edge effects, and the like, the Forest Service repeatedly has refused to consult experts outside of the agency in any sort of good faith effort to bring that information to bear on their Forest Plans.

Instead, the Forest Service has utilized a simplistic notion of tree species age classes to define the degree of diversity, without any consideration of the spatial orientation of those tiny timber stands. By treating all of these tiny timber stands as of equal biological value, regardless of size, location or surrounding habitat, the Plans take no account of the non-linear biological effects that occur depending upon how these areas are arranged. Simply put, the biological content, particularly over the long term, of an area is dramatically affected by its size, shape, and surroundings. This is a basic notion of ecology that the Forest Service does not accept and vigorously resists in order to be able to maintain its preferred technique of managing on the fragmented timber stand scale. Senator Humphrey's vision of a Forest Service providing balanced management of all natural resources within their control is no closer at hand today than it was thirteen (13) years ago at the time of passage of NFMA.

The Forest Plan appeals filed by these organizations have called for the creation of large blocks of contiguous undisturbed habitat, called **Diversity Maintenance Areas (DMAs)**, to create the kind of interior conditions that are being systematically destroyed by the present Forest Service philosophy driving our public lands toward homogeneity. Our call for moving away from managing every acre for periodic human disturbance, and instead creating large blocks of undisturbed habitat has the written support, in the appeal record, of prominent national scientists, such as Drs. Paul Ehrlich (Stanford), Daniel Janzen (Pennsylvania), E. O. Wilson (Harvard), Michael Soule (Michigan), and others. The Wilderness Society has likewise called for the creation of "Diversity Protection Areas" in their recent book "Protecting Biological Diversity." The conservation appellants in the Nantahala-Pisgah National Forest have sought greater protection from the effects of forest fragmentation. The work of the Wisconsin appellants has been cited in the current appeal of the Siskiyou National Forest Plan, as well as in the comments of the appellants of the Grand Mesa, Uncompahgre and Gunnison (GMUG) on the new draft plan amendments and EIS for those forests. In short, there is a groundswell of public demand for earnest application of the language of the NFMA on the diversity mandate, and yet the Forest Service remains unmoved.

In the case of the Chequamegon National Forest, the Forest Supervisor determined in 1986 that he would set up large blocks of contiguous habitat to develop needed interior habitat conditions. His draft of the Plan was rejected by Regional Forester Floyd J. (Butch) Marita, without any inquiry into the scientific merit of the proposal. The comments of the Research branch of the Forest Service were cavalierly cast aside, since the Eastern Regional Office realized that such biological mandates might eventually affect getting out the cut, and that was unacceptable. The events of this decisionmaking process are detailed in the Statement of Reasons filed by these appellants on the Chequamegon National Forest Plan (copy enclosed, with Appendix).

In the case of the Nicolet National Forest, the Supervisor received the comments from these appellants on his draft Plan, but refused to undertake any analysis of the possibilities for rearranging proposed timber sales in order to accomodate these biological needs.

On the Nicolet National Forest, the Forest has adopted an "old growth" policy which suggests to the untrained observer that the Forest Service is trying to regenerate true interior conditions that would support the kind of community of plants and animals that one would expect in native old growth forests existing prior to European settlement of the North Woods. Yet, on closer examination, we find that some of these so-called old growth areas are in fact recently harvested aspen stands, or tiny stands in the middle of wetlands, that are simply undesirable for timber production. The so-called "old growth" policy of the Nicolet calls for areas to be small, scattered, and as different as possible from surrounding habitat types -- as incorrect a prescription for developing legitimate interior conditions as one could imagine. (See enclosed Crooked Lake appeal documents.)

The most succint summary of this problem is found in the article entitled "Maintaining Biotic Diversity in National Forests: The Necessity for Large Blocks of Mature Forest," Solheim, Alverson and Waller (June 1987) Endangered Species Technical Bulletin Reprint, University of Michigan. The following quotations explain the fundamental issues:

> Ever since forest managers began planning for wildlife, their strategy has been to create openings and edge conditions in forests to favor a few selected species that thrive in those conditions and are particularly desired by hunters. Indeed, the term 'wildlife' has become practically synonymous with 'game animals.' Fortunately for foresters, the requirements of many game animals conform well with timber harvest activities. However, non-game wildlife is often affected as well and sometimes adversely so. A new model for wildlife conservation is now emerging due to increased understanding of the needs of a wider array of plants and animals.
>
> Central to the problems of conserving biotic diversity is an understanding of the role of scale. Conditions which lead to maximizing local diversity within a habitat (alpha diversity) may lead to a decrease in diversity if applied thoughout a large area. The diversity of a large area is the total (or gamma) diversity resulting from diversity both within and between habitats. Thus for large land management areas like a national forest, it would be a mistake to sacrifice gamma diversity by over-replicating one habitat type because it is particularly diverse. Yet this has been the centerpiece of 'game management' strategies for many years: the intentional creation of 'edge' in order to locally increase the number of favored species. Although old growth forest is not necessarily more diverse than second growth as is sometimes mistakenly presumed (Middleton and Merriam 1985), if there are plants and animals that depend on mature forests for long term survival, then old growth forest are an important element in maintaining the overall diversity of the National Forests.
>
> Ecologists and foresters are becoming increasingly concerned with the degradation of habitat for species that require less disturbed conditions. The cumulative effects of road building, timber harvests, and intentional creation of openings for game have fragmented most forest lands into relatively small areas of mature vegetation embedded in a matrix of younger forest.

> Biological communities are dynamic and permeable and respond to events at and outside their boundaries. Whenever one type of vegetation (in this case mature forest) is isolated as a relatively small patch, both small size per se (area effects) and an increased edge/area ratio (edge effects) can lead to deterioration of the biotic community.
>
> . . .
>
> Clearly, small patches of pristine vegetation such as Research Natural Areas (the Forest Service's land classification category that includes small (50-100 ha.) tracts of exemplary natural communities) will not suffice to maintain many sensitive species for the long term.
>
> This, however, need not imply great losses to forest economic productivity. There is no shortage of disturbed forest in most of North America. ... We have proposed specific "Diversity Maintenanc Areas" using guidlines derived from general ecological principles (e.g. minimizing the edge/area ratio) and site-specific concerns such as "embedding" currently protected but small reserves and rare plant sites.
>
> In this way, rather than having a homogeneous patchwork of disturbed lands and ineffective small old-growth stands, true biological diversity can be maintained by providing sufficient habitat for all kinds of plant and animals. ...

You will no doubt be told by the Chief of the Forest Service that such practices are "set asides" that are inconsistent with "Multiple Use." However, the MUSY Act specifically contemplates that not all purposes of the National Forest must be accomplished on each acre (see the definition of "multiple use" in 16 U.S.C. §531(a).) Contrary to the current position of the Forest Service, the manner in which periodic timber harvests and associated road construction fragment the forest makes the National Forests unsuitable over the long term for many interior species, and thus the timber harvest regime is in fact a dominant use that precludes the survival of many species that need interior, undisturbed conditions. And these species in decline are not just a few rare invertebrates. The Newmark study of the largest of our National Parks (A Land-bridge Perspective on Mammalian Extinctions in Western North American Parks. Nature 325: 430-432) demonstrated that large mammals are also vulnerable to the effects of fragmentation.

In pursuit of this issue, we urge you to consult with scientists, not just industry or agency spokespersons, or environmental activists. When you hear what biologists have known for years about the deleterious effects of forest fragmentation, and the failure of the Forest Service to make any good faith effort to incorporate this knowledge into forest planning, you will realize that the tragedy of forest plant and animal community decline is not just in the tropical rain forests, but here at home as well.

Except for more publicized cases such as the spotted owl, and the old growth in the Pacific Northwest, the decline is more subtle in North America, because instead of using huge clearcuts any longer, the process is one of a steady, unmerciful patchwork, accompanied by a false sense of security because edge-loving game animals are thriving. While many species that need interior conditions have been able to recolonize the North Woods after the great harvests of the turn of the century, and they continue to hang on in specimen stands of old growth that have no long term prospects, the return of areas to an undisturbed condition can still provide refuge for these species (Canada yew, Eastern hemlock, various orchids in cedar swamps, ferns, lichens, and others) so that their populations do not gradually decline, and they become threatened or endangered.

These parties urge you to demand that the Forest Service take immediate action to protect and enhance biological diversity through the establishment of large blocks of mature forest undisturbed by road construction, timber harvesting and wildlife opening activities. In the name of multiple use (as it is defined in the agency's in-house philosophy, but in fact meaning timber primacy), the Forest Service has consistenly defended the policy of managing in units of timber stands that can be fragmented with impunity. Not only does this mean that each and every Plan and timber sale decision is defective for failure to account for the cumulative effects on the environment, as required by the National Environmental Policy Act (NEPA), but that the wishes of Congress, in passing the biological diversity language in NFMA continue to be thwarted by a recalcitrant agency that is just now beginning to study an issue that was on the statute books thirteen (13) years ago.

We urge you and your Subcommittee to press the Forest Service to comply with the mandate of Congress and the vision of the late Senator Humphrey and others in truly providing for the preservation and enhancement of diversity of plant and animal communities. Please do not accept the agency's primitive understanding of ecological principles, nor accept the excuse that this is "an emerging issue" when the fundamental notion of cumulative ecological impacts has been part of NEPA for years, and the NFMA specifically called for action on this issue thirteen (13) years ago.

We thank you for the opportunity to submit these remarks for the record in this hearing.

Very truly yours,

BOARDMAN, SUHR, CURRY & FIELD
By
Walter Kuhlmann

cc: Sen. Patrick J. Leahy, Chairman
Sen. Herbert Kohl
Sen. Robert Kasten

Mr. Floyd J. (Butch) Marita, Regional Forester
Mr. Joel Holtrop, Supervisor, Nicolet National Forest
Mr. Jack Blackwell, Supervisor, Chequamegon National Forest

Mr. Brock Evans, National Audubon Society
Mr. Jim Blomquist, Sierra Club
Mr. Carl Zichella, Sierra Club
Mr. David Edelson, NRDC
Mr. Michael Bean, EDF

Clients
Ms. Sharon Clark Gaskill
Mr. Cy Lyle

WK/ck

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ENDANGERED SPECIES

Technical Bulletin Reprint School of Natural Resources
The University of Michigan

MAINTAINING BIOTIC DIVERSITY IN NATIONAL FORESTS:

The Necessity for Large Blocks of Mature Forest

S.L. Solheim, W.S. Alverson, and D.M. Waller

Ever since forest managers began planning for wildlife, their strategy has been to create openings and edge conditions in forests to favor a few selected species that thrive in those conditions and are particularly desired by hunters. Indeed, the term "wildlife" has become practically synonymous with "game animals." Fortunately for foresters, the requirements of many game animals conform well with timber harvest activities. However, non-game wildlife is often affected as well and sometimes adversely so. A new model for wildlife conservation is now emerging due to increased understanding of the needs of a wider array of plants and animals.

The Role of Scale

Central to the problem of conserving biotic diversity is an understanding of the role of scale. Conditions which lead to maximizing local diversity within a habitat (alpha diversity) may lead to a decrease in diversity if applied throughout a large area. The diversity of a large area is the total (or gamma) diversity resulting from diversity both within and between habitats. Thus for large land management areas like a national forest, it would be a mistake to sacrifice gamma diversity by over-replicating one habitat type because it is particularly diverse. Yet this has been the centerpiece of "game management" strategies for many years: the intentional creation of "edge" in order to locally increase the number of favored species. Although old growth forest is not necessarily more diverse than second growth as is sometimes mistakenly presumed (Middleton and Merriam 1985), if there are plants and animals that depend on mature forests for long term survival, then old growth forests are an important element in maintaining the overall diversity of the National Forests.

Ecologists and foresters are becoming increasingly concerned with the degradation of habitat for species that require less disturbed conditions. The cumulative effects of road building, timber harvests, and intentional creation of openings for game have fragmented most forest lands into relatively small areas of mature vegetation embedded in a matrix of younger forest. Biological communities are dynamic and permeable and respond to events at and outside their boundaries. Whenever one type of vegetation (in this case mature forest) is isolated as a relatively small patch, both small size per se (area effects) and an increased edge/area ratio (edge effects) can lead to deterioration of the biotic community.

The area of a habitat clearly influences the species that can be maintained within it. Animals with large home ranges and/or relatively narrow habitat requirements are especially sensitive to area and become scarce or disappear from isolated patches of forest. Perhaps it is less obvious that other animals with smaller home ranges and even sedentary plants also require minimum areas of suitable habitat. This is partly because numbers of organisms are not static over time. Natural fluctuations due to environmental variance and random changes in plant and animal survival and reproduction occur constantly and imply that a large enough population of

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Forest Planning

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the organisms (usually called its "minimum viable population" or "MVP") must be present in an area to ensure continued presence despite these factors.

One alternative means of preventing local extinctions is to maximize the likelihood of recolonization from similar, nearby areas. Biologists find that this immigration is becoming less likely for many organisms in our fragmented landscapes and that biological preserves need to be large enough to be self-sustaining.

Island Biogeography

The exact effects of area and isolation on survival are currently the object of much study under the rubric of "Island Biogeography," a set of ecological principles that relates size and isolation of areas (including habitat "islands" such as mature forest) to the number and kinds of species that can be supported indefinitely in those areas (MacArthur and Wilson 1967; Harris 1984; Newmark 1987). The analogy of nature preserves to islands, however, has been criticized. Nature preserves may not be strictly analogous to islands because of impacts from surrounding land. This may point to the need for even larger areas for effective preservation. (Eternal External Threats, Janzen 1983, 1986).

Even where the analogy holds, research on fragmentation of natural areas is a difficult problem because organisms persist in an area for varying periods of time after habitat conditions required for long-term maintenance are gone and the population is doomed. For example, the survival of adult individuals in a population does not necessarily mean that these individuals can successfully reproduce under present conditions. The lag between habitat degradation and complete disappearance of the organisms (called the "relaxation time") may be quite long and lead to unwarranted optimism about the ability of small areas to maintain viable populations. Edge effects at small scales are well known: increased light levels and decreased humidity are common problems of small woodlots surrounded by agricultural land. It is now becoming evident that edge effects significant to many species occur at previously unanticipated scales. Such edge effects have been demonstrated to occur over tens of thousands of acres, even when older forest is embedded in younger growth. The result often involves animals from the disturbed matrix adversely affecting plants and animals adapted to undisturbed habitat.

In the Great Lakes region, for example, increased herbivory by deer has contributed to a serious decline in regeneration of once important forest community members such as Eastern Hemlock and Canada Yew (Anderson & Loucks 1979; Frelich & Lorimer 1985). Similarly, the increase in nest predation and parasitism by birds and mammals favored in the disturbed forest matrix has caused a decline in breeding populations of migratory songbirds. Studies show that the rate of predation declines significantly with increased forest area (Brittingham and Temple 1983; Wilcove 1985).

Adding to the problems encountered when too much reliance is placed on small areas for preservation is the possibility of catastrophic disturbance. Small-scale disturbances such as treefalls are part of the dynamics of any natural community. Larger-scale disturbances like fires or blowdowns are common over a longer time span and must also be accounted for in natural area management. Studies of presettlement forests in Wisconsin suggest that at any one time 17% to 25% of Wisconsin's northern woods were recovering from windthrows (Canham & Loucks 1984). In 1977, Wisconsin lost its largest remaining stand of virgin forest to windthrow. Natural areas must be large enough to retain internal sources for recolonization following disturbance. This "minimum dynamic area" (Pickett and Thompson 1978) is determined both by the potential size of disturbances and by the biological characteristics of the organisms affected.

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Endangered Species Technical Bulletin Reprint

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Implications for Forest Management

Clearly, small patches of pristine vegetation such as Research Natural Areas (the Forest Service's land classification category that includes small (50-100 ha.) tracts of exemplary natural communities) will not suffice to maintain many sensitive species for the long term. Although no one knows with any precision how large protected blocks must be, in the Great Lakes region, areas of at least 20,000 ha. in a single large block may be necessary to provide sufficient habitat and to minimize edge effects. Areas of 40,000 ha. may even prove to be more appropriate when more data on MVP's, extinction, colonization rates, and edge effects become available.

This, however, need not imply great losses to forest economic productivity. There is no shortage of disturbed forest in most of North America. Hence, an intensification of timber harvest on non-protected areas (i.e. the majority of the remaining timber base) may be acceptable. This is exactly what we have proposed for the Chequamegon and Nicolet National Forests of Wisconsin: not a decrease in harvest levels, but a "zoning" of the forests so that 100% of the logging activities and traditional wildlife management occur on 80% of the land. This is fully compatible with the multiple use mandate of the Forest Service, which specifically states that not all forest lands should be used for all purposes. We have proposed specific "Diversity Maintenance Areas" using guidelines derived from general ecological principles (e.g. minimizing the edge/area ratio) and site-specific concerns such as "embedding" currently protected but small reserves and rare plant sites.

In this way, rather than having a homogeneous patchwork of disturbed lands and ineffective small old-growth stands, true biological diversity can be maintained by providing sufficient habitat for all kinds of plants and animals. The common but specious "ecology vs. economics" argument can be sidestepped by wisely planning the spatial distribution of forest activities for the benefit of all.

This article is extracted from the "Statements of Reason", documents written in response to the Chequamegon and Nicolet Forest Plans. These Statements (800 pgs.) provide a much fuller exposition of the above concerns, and may be obtained at cost from the authors:

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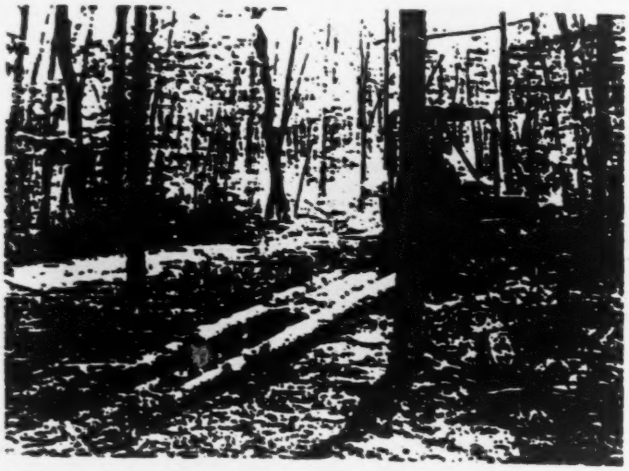

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STATEMENT OF R. REED FARRIS TO THE SENATE SUBCOMMITTEE ON CONSERVATION AND FORESTY

Mr. Chairman, members of the Committee, thank you for the invitation to present testimony to the Subcommittee on Conservation and Forestry on the management practices of the U.S. Forest Service on our public lands. My comments this morning are based on my own personal experiences as a recreational visitor to the National Forests as well as experiences related to me by my family and friends. I will summarize in general terms the current and future impact of existing management practices on public land.

I am a fortunate individual. I have been all over the United States, Canada and Mexico. I have also had the priveledge to travel in Europe twice and in South America and through it all I think our natural resources provide a collection of the most breathtaking scenery anywhere.

I am an Eagle Scout. I love to get outdoors to hike, to camp, to fish, or just to go sightseeing and explore. Living in Atlanta for the past seven years has been a blessing. When I first visited Atlanta to find an apartment I refused to believe that trout were being caught in the Chattahoochee river, within the city limits! I thought I was in heaven. I learned that Atlanta is considered to be one of the most forested major cities in the U.S. This was great! Atlanta is also in close proximity to over 850,000 acres of National Forests in the Chattahoochee and Oconee. 300 miles of hiking trails. 500 developed campsites. 200 picnic sites. No problem, plenty of room for everybody. Wrong. The great outdoors are becoming crowded.

Every year I go to the forests I see more people. When I first started hiking in the Cohutta Wilderness there would be trails where I would not see anyone for five-or-six miles. In September of 1989 I hiked the Jack's River trail, 7.7 miles up, 7.7 miles back, and I came in contact with 42 people. I counted them. This trail requires you to ford the stream 20 times up and 20 times on the return. This is a remote trail on the Tennessee state line and is considered a tough trail, so it is not as if people were just stopping by for a picnic. People are visiting the forests in increasing numbers and with greater frequency. We face a greater demand without an increase in supply. In fact with the harvesting of timber we may even face a decrease in the supply of quality recreational area. It has become so crowded that by Thursday afternoon all of the developed campsites have been taken for that weekend.

I enjoy seeing people getting out and taking advantage of our resources but it is a shame for people to come across what was once a real quality forest area that has been clear cut and just left bare. There are areas around the Dicks Creek and Waters Creek area that have been clear-cut and they're a real eyesore. It looks as if somebody dropped a bomb. These are two of the better trout streams in north Georgia and I don't know if the quality of the fish habitat has changed or not but I can say that if you get away from the stream at all the land really appears like a war zone.

I think that most of the public believes that the National Forests and National Parks are all the same. The same wooden brown signs with the same rounded yellow lettering. The same scenic vistas. The public thinks that all those big square cuts on the mountainsides are private lands bordering public lands. The public does not know that in south Georgia private landowners are being paid to plant trees on land with a grade of three degrees or more to fight erosion. Yet in north Georgia public timberland in the National Forests is being clearcut on grades of five to fifteen percent and the federal government is losing money at it. In the business world you go out of business that way because we're not allowed to print money.

I am not against the timber companies or their employees making decent incomes. I am a Financial Consultant with Merrill Lynch and it is my job to help people and companies make money. But, I am against companies and individuals making money in an irresponsible manner. I believe that the harvesting of timber from public lands can be done with a positive impact. I believe it can be a "win-win" situation for all involved. It may mean the timber companies' profits may not be as big. It may mean that a small proportion of some wildlife habitat may be shifted. But I think a little comprimise on each side can keep everybody in the game.

Here are several suggestions I would like considered:

1) There is an abundance of quality private timberland available for harvest. Let the timber companies negotiate with the private landowners for timber rights. Leave the National Forest public lands stand untouched. If the timber companies complain that the private timber is too expensive then raise the price of the public timberland to the private timberland prices. (We have obviously been selling low and in my business that is a real no-no.)

2) If public timber is going to be sold please raise the prices and restrict the timber havesting to the creation of selected firebreaks and small-to-intermediate forest meadows. I realize that clearcutting is a more efficient method for the timber companies, but the public lands do not exist as an asset on their balance sheets. These types of cuts would create less erosion, offer some protection against forest fires, and have less negative impact on the recreational and wildlife aspects of the National Forests.

Mr. Chairman, members of the committee, thank you for the chance to offer my thoughts on the management practices of the public lands. I apologize for the brevity of my testimony and regret that I cannot be with you in person to express my concerns. In summary I see the National Forests as an irreplaceable National treasure and that no one special interest group should be allowed to have such a negative impact as do the timber companies. Please curtail or restrict the timber cutting in our National Forests. The timber companies can cut trees on private land but all to often we are not allowed to hike, fish or camp on the private lands. The National Forests are so few but they are all we have.

Senator FOWLER. I was not going to ask you, Chief, but since you were kind enough, and of which I am deeply appreciative of your staying here the whole time, and thereby giving the attention to this region and all of the public concern you see reflected here today.

I guess I had better ask you so we can see where we are. As you know, the Senate passed an amendment that I offered that cut $65 million out of the Forest Service's roadbuilding budget and my—I don't know—my motivation for that had an awful lot to do with reading all of your, all of the Forest Service plans, all of them in this region in substantial part and a substantial number in varying parts of the country, and, as you know, I took the $65 million, we tried to save some of that, $20 million for deficit reduction, but the other $40 million was put into programs all of which would help both private and public foresters, money to the State foresters for research, identification, wildlife habitat, research for biological diversity, all the things that have been testified here today, much to my surprise, I didn't know what anybody was going to say, that the Service would like help on but which were underfunded.

The Congress committee, as you know, in its wisdom took the whole $65 million back, but also—I have to choose my adjective right—you need a little bit of legislative gain to serve as access to an additional $30 to $35 million for roadbuilding for next year, if certain conditions are met.

So the total that you have access to for your budget for fiscal year 1990 for roadbuilding is 10 percent even above the President's request and the Forest Service request.

Now, you have heard this morning and you yourself testified that we have to give more emphasis on multiuse. Some areas have adequate roads and that if we are to give more emphasis on multiple-use, this is me now talking, I would assume that that means, that it would have to mean, less funding for roadbuilding. I don't see how you can create more interest on recreation, wildlife, biodiversity, habitat, stream purification, peaking industry, all of that and still have any improvements over and above even what was requested by the Service, which you have now been given access to by the Congress.

How are you going to determine that or what do you think is going to happen this year? Are you going to use all of that money and, if so, where, and why?

Mr. ROBERTSON. Mr. Chairman, my problem with your road amendment was that it put the Forest Service in an impossible situation. On the one hand, the Congress proposed, I believe, 11.3 billion board foot timber sales program and the budget that came from the Appropriations Committee was very well balanced, it was what we needed in road construction in order to meet the 11.3 billion board feet and then by kind of taking the meat axe approach and cutting out $65 million without adjusting the Timber Sales Program, it had us in an impossible situation. If Congress wants to reduce our Timber Sales Program, that is their choice, but I don't think it is fair to put the Forest Service in an impossible situation.

So, what happened was the conference committee had to deal with 11.3 billion board foot timber sales and the House and the Senate was very close on that, without adequate road money to produce that program, and so the conclusion of the conference committee I think was to reduce the Timber Sales Program.

Senator FOWLER. You are telling me now that whether it was 11 billion or 13 billion, you have some authority to adjust that, do you not?

Mr. ROBERTSON. Adjust the Timber Sales Program?

Senator FOWLER. Yes.

Mr. ROBERTSON. Well, we have forest plans out here.

Senator FOWLER. Yes, I know, but you can adjust, you don't, you are not mandated to sell $11 billion worth of board feet.

Mr. ROBERTSON. No allowable sales quantity.

Senator FOWLER. Allowable sales quantity nonmandated is the cap.

Mr. ROBERTSON. That is right.

Senator FOWLER. And are you saying that even if you went up to that cap that the permanent road system now in place by the Forest Service could not meet that?

Mr. ROBERTSON. Yes, I am saying that.

Senator FOWLER. All right, how much of the about 11 billion board feet do you anticipate selling this year?

Mr. ROBERTSON. Well, we intend to——

Senator FOWLER. Try to meet it?

Mr. ROBERTSON. Yes, I have congressional direction.

Senator FOWLER. That is the cap, but you intend to try to meet it even under the, even if we continue to lose substantial money in meeting it?

Mr. ROBERTSON. Well, the Congress gave me a specific timber sale target by region in the country and so that is legislative direction as I read it.

Senator FOWLER. So despite your local use testimony, you anticipate using all of the money allocated for roadbuilding?

Mr. ROBERTSON. Well, I have to or else I cannot meet that target that was set by Congress.

Senator FOWLER. How are you going to meet your multiple-use guideline which you described?

Mr. ROBERTSON. All of these timber sales will be in accordance with the forest plans that have been approved and we are not going to violate those forest plans. Now, Mr. Chairman, I wrote the Congress, I put a letter in, a letter was put in the Congressional Record[6] based on your amendment, when it was carried in the Congressional Record and based on our analysis we can only produce 9 billion board feet with the reduction of $65 million in roads. Now, the Forest Service can produce 9 billion board feet, or we can produce 5 billion or we can produce 11, but we cannot do that without road money.

And let me talk about road construction a minute because I think there is a lot of inaccurate information, misleading information about roads. The timber purchasers basically construct the roads for timber sales; however, before we can let a contract which includes the survey and design and the specifications for roads, somebody has to go out and locate that road on their ground, do the survey and design of it and include it as part of the contract and include an estimate of cost, and so $58 million of that funding was to go to paying the surveying, the design, and environmental analysis the Forest Service people preparing those road packages going into the contract.

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[6] See the July 26, 1989, issue of the Congressional Record, page S. 8825.

I guess the alternative is just to turn the road construction over to the loggers and let them do whatever they want to out there, but you would certainly not get the kind of road construction that some of us could be very proud of on many of those tracts and so I feel that is necessary.

Also, we acquire about 1,000 rights-of-way a year for public access to national forests. That road construction money, reconstruction money goes toward paying for those 1,000 tracts for rights-of-way access.

Most of the timber purchasers are not capable of building bridges and so we basically use appropriated funds to put in the bridges that timber purchasers build the roads for.

The road construction money paid for a lot of our land management planning, maybe our budget is not put together right, Mr. Chairman, but you will see no line item in our budget for land management planning and that has been $2 to $3 million per forest and the road construction budget, since a lot of the decisions we are trying to make in those forest plans, is whether to road an area or not and so we have had road construction money to pay for a big part of these forest plans, and there is, of course, about $30 million in that budget for recreation roads, you know, to camp grounds and trail heads and parking lots for the recreation and so, and that is kind of important, and so when you break down the pieces of that road construction project, I think it makes a lot more sense than just looking at a lump sum $186 million.

Senator **Fowler**. Well, what doesn't make sense to me, and I say with all respect, we have a whale of a job and we have talked about it before, and we are going to be on this, since you are stuck with me as the committee authorized the chairman, I mean you can sell 20, 30, 40, it doesn't make any difference what the price is, there is no limit to the amount of millions of board feet if you do it below cost. There is no question about that.

I just don't think there is enough money to do everything that you and the Forest Service has testified to if you are going to make the below-cost sales timber programs still the No. 1 priority of the Forest Service.

Mr. **Robertson**. Senator, that is not the No. 1 priority of the Forest Service. Out of our Timber Sales Program in 1987, based on our Timber Sales Accounting System, which was agreed to by TAO, as following the generally accepted accounting practices, we made a $540 million profit on our Timber Sales Program in 1987, and in 1988, we made a $640 million profit on our Timber Sales Program and included in that, though, were some below-cost timber sales, and there was about a $50 million loss on some of those really small forests that really do not have a big enough Timber Sales Program or the markets are not adequate in order to pay for it, and I have been very up front about that. I don't like below-cost timber sales either, and I would like to reduce them but I think we have to do it over time, and looking at the situation on the ground and make some adjustments over time so that these dependent communities, dependent mills, and dependent families and dependent schools and road budgets can adjust over time.

Senator FOWLER. Well, all I want to know from you, to keep us on the same track, is how you measure success, if you don't like it, as you continue to testify, let's do something about it, let's save the taxpayers money on the public land, let's reappraise your reappraisal system that does not include and incorporate the actual cost of delivering this timber off of public lands in those sales, and what I want from you is—I can be relatively patient also for all of these economic reasons, but what I haven't seen is this huge shift that we have to turn, it does take, because the shift is so huge, it is going to take a big area of turn, and I haven't seen the turn yet. I hear the right phrases, and when you yourself come here to talk about, this population and this area down here is doubled. It is going to double again in another 10 years, and yet the plans include the continued doubling or tripling over the next 10 and then the next 10 years of the timber sales. I mean it just does not fit, and just like any businessman, I want to know how we, where the check points are.

There is no question in my mind how much timber you can—that you meet any target as long as we continue subsidizing off the public lands.

Mr. ROBERTSON. Well, Senator, I think——

Senator FOWLER. You cited saying that your own wilderness management said the funding for wilderness management is inadequate, staffing is very much in need, as you have testified, and that is in Washington. As a result of this need, the Service cannot maintain the wilderness area trails, clean the campsites, monitor conditions or educate the public on proper behavior to the extent that it is necessary.

Well, if that is all true, coming from the Forest Service, how do you justify so much of your personal time spent on trying to get Congress to build more roads in the national forest when there is clear need for basic maintenance in the forest.

I have no interest whatsoever of just railing in the wilderness, I want to make this ship turn just a little bit, get the taxpayer out of the business of subsidizing these timber sales on the public land and find a way to continue, try, which I mean we are the OPEC of trees in this country, but we have our policy backward maybe in the private sector, where they are for the first time in the last 4 years cutting more than they are planting, and, of course, that is increasing, and we still increase the pressure on our public forests and those people who have always just looked on the public forest as to its hardwood.

Well, I appreciate it, I appreciate your being here, Chief, but I wish you would write me, think about it, and let's have a few private meetings now in Washington and see if we can't find a way to do what you say you want to do, get us out of the business, begin that process of the taxpayers losing all the money, number one. but also, I don't think you are going to get any argument from anybody, the more roads that you build, the more of all of this environmental problems that have been described here rather clearly, and it is not necessary.

Mr. **Robertson**. Well, Senator——

Senator **Fowler**. Once again, I will give you the last word.

Mr. **Robertson**. Well, I will just say, Senator, that I think you will find me a reasonable and flexible person on this. I realize the Forest Service, we are changing, and maybe we need to be changing faster than what we are, but I am willing to work with you. I would most welcome a chance to follow up on many—well, all of the points really that were made by people today, and I will work with you on that.

I would just ask that in the wisdom of Congress as they go about making decisions, you don't put us in an impossible situation and we can produce any level timber sale program up to 11 to 11.5 billion, but if Congress wants to see that reduced, we can reduce that, but don't put us in an impossible situation with a timber sales target without the mix of funds that it takes to get that job done.

As I say, you will find me, I hope, a reasonable flexible person and I look forward to further discussion with you.

Senator **Fowler**. I will still give you the final word again, but the response to that is, because you have, because you and your people have the public charge and do have under the law the flexibility to change that program, all that I have to say, I know how tough it is politically, we all are used to these tough political decisions, but if we mean business, somebody, some Chief, some Service, has to say yes we could have made 11 billion board feet, but we are only doing 9 this year because to do that extra 2 billion did not make economic and environmental sense. It requires this year for us to go into far too sensitive areas where we created more problems and lost more from all of our other charges than the economic benefits from meeting those sales. That hasn't been done, but it can be done. You don't need any legislation, you don't need any adjustment of those targets because in the law it is stated the balance that you are required by law to do and that target set by the Congress is simply part of that multiple-use mandate that is already in the law, as you know, and if it is too much, if it requires you to violate all other sections of your multiple-use mandate, then you simply locate the target.

Now, I know I am arguing and I may be wrong, that you cannot do it, I would love for you to tell me how you could do it. I do not think you can do that and meet your other mandates, but somewhere along the line, if we mean business that we are going to get the public out of the business of subsidizing these sales on the public lands, recognizing all of the population pressures, the demand, all of the things that we have talked about here today, somebody has to say on the public lands, the public lands are going to be administered according to a multiple-use factor and that has evolved to me, we have to make some different changes in the way we have been doing business, just coming in every year.

Twenty million board feet this year from the Chattahoochee; the next 10 years, 60; the next 30 years up to 90.

Mr. **Robertson**. Well, Senator, you and I both are very young people. We will probably be around awhile and before the Chattahoochee ever makes that change, we will have a lot of discussion before those kinds of increases take place, if they ever did. I look forward to working with you.

Senator **Fowler**. I want to thank you, and also I want to thank, I know I am—I have said it before but I want to say it again, I believe in public service and I have just got into sort of this business in the last 2 or 3 years in the Senate, but this is my 13th year in the Congress and I have been in most of the national forests in the South, hiked them, fished in them, I know many of your professional staff and they are to the man and woman some of our finest and most dedicated public officials who are caught in the middle of very difficult decisions as opposed to the man who re-evaluates some of the practices of the past, and I know I must be perceived as a critic. It is a critic out of love for the Service, what I think we can do and lead, rather than being caught behind, that this lawsuit is all about, and to the audience, we have had hearings where we had 20-foot trees walk in and 18-foot woodpeckers and——— [Laughter.]

Senator **Fowler** [continuing]. People at each other's throats, I commend you for your attention and interest in these public matters. We would love to hear, based on what you have heard, any suggestions on how we can do a better job.

Thank you very much.

[Applause.]

[Whereupon, at 11:32 a.m., the subcommittee adjourned subject to the call of the Chair.]

[Material submitted for inclusion in the record follows:]

APPENDIX

PREPARED STATEMENT OF ROBERT HAWES, PRESIDENT AND CHIEF OPERATING OFFICER, MELLCO, INC., AND THE AMERICAN WOOD PRESERVERS INSTITUTE, VIENNA, VA

Mr. Chairman and members of the subcommittee, thank you for the opportunity to present the views of Mellco, Inc. and the American Wood Preservers Institute (AWPI) on timber supply issues caused by the red-cockaded woodpecker.

Mellco is a wood treating company, based in Perry, Georgia with plants in Athens, Alabama; Roanoke Rapids, North Carolina; and Rock Hill, South Carolina.

AWPI is a national organization representing the wood preserving industry on Federal environmental regulations. Its members include manufacturers of wood preservatives and wood treaters. According to *Wood Preservation Statistics, 1987*, there were 581 active treating plants in 1987. The industry's main products include treated lumber used for backyard projects including decks and fences, railroad ties, utility poles, and piling. Georgia is a major producer of treated wood with 55 treating facilities and 4 manufacturers of wood preservatives. Treated wood accounts for at least 41 percent of all soft timber removals in the Southeast and it is estimated that 60 percent of the timber harvested in Georgia ultimately end up as a product of our industry.

A steady and affordable supply of timber is vital to America's wood preserving industry. In 1987, 576 million cubic feet of timber provided the raw material for our industry's major products. This represented the approximate annual growth on about 600,000 acres of the nation's forests. However, because of the unique nature of our industry, the lifetime of the product is extended approximately six times or more. The application of wood preservatives (usually in a manner involving pressure treatment) mitigates wood-destroying pests. This process substantially reduces the demand on that productivity by six or more times that volume.

America's wood preserving industry is also vitally affected by the heavy costs of compliance with environmental laws. We are heavily regulated by the Clean Water Act, the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA), Superfund, and the Resource Conservation and Recovery Act (RCRA). The industry is also the subject of a proposed hazardous waste listing rule under RCRA which could necessitate expenditures as high as $2 to $9 million per facility to comply. These are extremely high costs for an industry that has a majority of small firms that are capitalized at between $½ and $2 million. Most of the industry meets the Small Business Administration Size Classification often with less than 500 employees. Sixty-two percent (62 percent) of U.S. wood preserving facilities employ less than 20 people according to the U.S. Department of Commerce. Price increases in the industry's raw material coupled with the facilities increasing environmental expenses will directly threaten the profitability of many firms.

We are concerned with two issues that would directly affect the availability and prices of timber—biodiversity and Forest Service road appropriations.

BIODIVERSITY

Wood Preservers, like the rest of the forest products industry, face a supply crises for their main raw material-timber. Like many of our associates, we are dependent on the timber volume produced on private and public forest lands across the country. However, much of this timber supply has become or could become unavailable to the industry because of a variety of tactics, including lawsuits, brought under the Endangered Species Act (ESA) by various preservationist groups. These associations have been using various creatures that are listed or are candidates for listing under the ESA as threatened or endangered as surrogates to halt timber sales.

Under the ESA, Federal agencies "shall seek to conserve endangered and threatened species and shall use their authorities in furtherance of the purposes of this Act." Section 7 of the act prohibits any Federal action which would adversely affect an endangered species or its critical habitat. All Federal agencies are bound to strict compliance with the requirements of section 7 and must consult with the U.S. Fish and Wildlife Service if there is any question concerning the impact of their actions or programs on an endangered species or its critical habitat.

During the Sixth Annual Western Public Interest Law Conference held on March 5, 1988, considerable attention was paid to using various creatures as surrogates for delaying Federal timber sales. Andy Stahl, a resource analyst with the Sierra Club Legal Defense Fund, spoke at length on the use of surrogates. He stated, "until legislation is adopted which protects these forests, we need at least one surrogate . . . that will provide protection for the forests . . . as the strategy for protection of old-growth matured (forests), it appeared that wildlife would offer the most fruitful hunting grounds for a surrogate that meets the three criteria."

The actions taken under the ESA using two birds illustrates the successful use of surrogates. In the Northwest United States, preservationists used the ESA to bring lawsuits to stop the timber harvesting of old growth timber arguing that the northern spotted owl is threatened and that these are forests the only habitat to sustain the bird's viability. The red-cockaded woodpecker (RCW), a bird listed as endangered for nearly 20 years and accommodated in forest planning by the Forest Service, has emerged in the past year as a major threat to timber supply from southern pine forests.

A temporary solution to the timber crises caused by the preservationist lawsuits involving the spotted owl was implemented as part of H.R. 2788, the Interior and related agencies appropriations bill. This bill covers funding for the Forest Service and the Bureau of Land Management. The conference committee adopted a modified version of an amendment sponsored by Senators Mark Hatfield (R-Ore.) and Brock Adams (D-Wash.) that specified Forest Service timber sales levels and provided protection of those sales from litigation. (See appendix A [7] for the details of this compromise.)

The surrogate that we in the Southeast are more concerned about is the red-cockaded woodpecker. This bird lives primarily in the Southern pine forests with nesting cavities in live, older pine trees. It is nonmigratory and individual families or clans maintain year-round territories around their nesting cavity trees. The cavity trees used tend to be clustered in small groups that are termed colonies or colony sites. Individual colonies may have from 1 to 30 cavity trees, which can be either active or inactive (abandoned).

In 1970, the RCW was placed on the Federal list of endangered species. The Forest Service presently operates under a RCW handbook and recovery plan—developed in consultation with the Fish and Wildlife Service—which outlines protective measures for RCW population on national forest lands in the Southeast. The RCW handbook is incorporated in the Forest Service's existing national forest plans, but is currently being revised to provide additional RCW protective measures. In the interim, the Forest Service is developing guidelines for additional protection. Both these guidelines and the revised handbook may reduce potential timber management levels on the national forests in the Southeast.

Management of the national forests is important to wood treaters in the Southeast as approximately many of these companies purchase the timber that is grown there. However, the vast majority of the timber treated in this region comes from private forests. As the RCW handbook sets the baseline for the most appropriate form of management for RCW habitat, management of private lands could also be affected by the upcoming revision of the handbook. This potential situation would arise because section 9 of the ESA prohibits anyone from "taking" an endangered species.

The courts have defined "taking" as including any advertent action that would adversely affect a listed species or its critical habitat. Therefore, if a private landowner elects not to modify his existing management practices to correspond with the upcoming revisions to the RCW handbook, the landowner could be vulnerable to legal challenges of "taking" RCW under the provisions of section 9 of ESA.

In 1988, The Wilderness Society, Sierra Club, and the Texas Committee on Natural Resources filed a lawsuit against implementation of the final national forest plan for the Texas National Forests in the U.S. District Court for the Eastern District of Texas. Plaintiffs alleged, among other things, violations of the ESA. The plaintiffs sought injunctive relief to restrain certain timber management activities of the Forest Service and alleged that these management practices had an adverse impact on the RCW.

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[7] Appendix A was not supplied for the record.

On June 17, 1988, the court concluded that the Forest Service had violated sections 7 and 9 of the ESA by "jeopardizing" the RCW habitat and by actually "taking" the RCW. Judge Parker issued a permanent injunction prohibiting the Forest Service from practicing even-aged management within 1,100 acres of any RCW colony site. The Department of Justice has filed an appeal of the District Court decision to the U.S. Court of Appeals for the Fifth Circuit.

The June 1988 court decision only mandated managements of timberland in one national forest. However, in December of 1988, the Sierra Club Legal Defense Fund (SCLDF) notified the Forest Service of its intent to file suit on 14 other national forests the Southeast for similar violations of the ESA. The SCLDF action leans heavily on the Texas ruling even though the circumstances are somewhat different on each listed national forest. Notwithstanding the fact that these national forests are being managed under the provisions of an approved national forest plan, the SCLDF alleges that most of the RCW populations on these forests are declining due to Forest Service "inadequate management practices for protection" of the RCW.

On March 27, 1989, the Forest Service sent to its affected Forest Supervisors, a policy memorandum which would have unilaterally modified existing and proposed timber sale contracts in the vicinity of RCW colonies. The Forest Service estimated that this action could reduce the timber harvest in the Southeast (Forest Service Region 80 by about 40 MMBF this year, with an out-year impact of 15–25 MMBF annually on approximately 1.5 million acres). The intent of this action, according to the Forest Service, was to put the Agency in the best defensible position for the expected litigation.

The Region 8 Forest Service Timber Purchasers Council—an affiliation of timber purchasers throughout the Southeast—expressed grave concerns with the potential impact of this proposed Forest Service action undertaken outside of the framework of the national forest planning process and without compliance. The Council objected to some other, longer term initiatives that the Agency is considering in response to the Sierra Club threat. Consequently, on March 31, the Region 8 Forest Service Timber Purchasers Council filed an appeal to the Chief of the Forest Service, challenging the March 27 Regional Forester's decision to unilaterally implement a new policy on timber cutting within ¾ of a mile of Red Cockaded Woodpecker colonies on 14 national forests in Region 8.

On April 11, the Chief responded to this appeal, stating that the March 27 decision was not yet appealable because the Regional Forester had not conducted the appropriate environmental analysis along with the decision. The Chief directed the Regional Forester to perform an environmental analysis, and then prepare the appropriated decision document. The Regional Forester is now evaluating options for further action still mindful of the threat of litigation from the Sierra Club. For its part, the Sierra Club, has so far flatly refused to meet with the industry and the Forest Service to discuss the opportunity or possibility of compromise.

Our industry is concerned about the potential for disruption of our supply in timber. Although we see possible interruption in the supply from public forests in the South, we are even more apprehensive about challenges to timber harvests on private lands due the interpretation of the ESA's definition of "taking" under section 9 as actions that adversely affect an endangered species or its habitat. Private timber accounts for the bulk of the raw material for treated wood.

The wood preserving industry is committed to the protection of our environment and to the conservation of the many species that inhabit it. However, we believe that the Forest Service and some Federal judges have "overreacted" to the various actions of the preservationists. The actions taken by the judges and the Forest Service will cause unnecessary harm to wood preservers and to related forest products industries.

FOREST SERVICE ROAD APPROPRIATIONS

The proposed Bush administration Forest Service road construction budget would have met the requirements for an adequate level of timber harvest. Therefore, AWPI supported this inclusion of this funding in the Department of Interior appropriations bill. After your amendment which reduced this funding level, we actively worked to restore it.

In discussions with your staff, we learned that your amendment was spurred by your conviction that Forest Services roads are over-designed and over-constructions. We share your view on this issue. However, we would like to work with you to address the issues through actions that would force the Forest Service to change its policies on road construction. We believe this type of response would produce results that were superior to those evolving from a large funding reduction. On April 20, 1988, Region 8 Forest Service Timber Purchasers Council recommended "That Forest Service roads be designed to meet local conditions, conditions of timber sales and the intended use of the road." Adoption of this type of policy, in our view, would mitigate the over-design and over-construction of roads. AWPI would support any actions that you would take to compel the Forest Service to tailor their road construction policies to meet these recommendations.

AWPI's second concern focuses on the issue of road construction. We believe that preservationists have been using arguments in this area as a proxy for impeding timber access. This type of action is compatible with the use of and endangered species under the ESA as surrogates for the reduction of the harvest of timber. Therefore, AWPI will continue to work for a road construction program that will provide a satisfactory level of public timber sales.

CONCLUSION

AWPI welcomes the opportunity to work together with Congress and other interested parties to reach the goal of a steady and reliable source of timber so that our industry can remain viable. We appreciate the chance to continue working with your staff to achieve this goal.

TENNESSEE AUDUBON
COUNCIL

100 Otari Drive
Kingsport, TN 37664
November 6, 1989

Senator Wyche Fowler, Jr.
Attention Ben Yarbrough
Subcommittee on Conservation and Forestry
Agriculture Committee
U. S. Senate
Washington, DC 20500

Re: Atlanta Field Hearing Record

Dear Senator Fowler:

We are tired of seeing our tax dollars used to finance the destruction of our National Forests. We appreciate your efforts to correct this and hope that you will continue. We especially appreciate the stunning cutback in the Senate of roads appropriations which you achieved. We are pleased that you held oversight hearings in Atlanta and regret that more of us could not be present.

Most timber sales from the Cherokee National Forest lose money because of steep and unsuitable terrain and high road building costs. True adherence to the multiple-use concept would see those tracts reserved for scenic, re recreational, wildlife and watershed values. If economic forces were allowed to control, the offerings would go not-sold because the offering price would be too high. Instead the Forest Service claims various side benefits for the cut and/or the roads so as to justify the sale. These benefits usually are not real or are not needed.

Senator Wyche Fowler, Jr.
Page 2
November 2, 1989

Below cost sales should not be used as a subsidy to the timber industry, any more than to any other industry. Artificial maintenance of the dependence of small rural communities on marginal timber activity is not in their best interests. The economic activity based on forest users of scenic and recreational values has much more to offer in the long term.

Please make these comments part of the hearing record.

Sincerely,

Arthur S. Smith
Chairman, Conservation Committee

Cowpasture River Preservation Association
HCRO4, Box 71A
Millboro, Virginia 24460

November 10, 1989

Senator Wyche Fowler, Jr.
Attn: Ben Yarbough
Subcommittee on Conservation and Forestry
Agriculture Committee
U. S. Senate
Washington, D. C. 20510

RE: Atlanta Field Hearing Record on Forest Management

Dear Senator Fowler:

Thank you for the opportunity to present our statement for the Hearing Record on Forest Management, with particular reference to the George Washington National Forest, located in 13 counties of Virginia and 4 counties of West Virginia.

The GWNF's Land and Resource Management plan, originally approved in September 1986, was inattentive and unresponsive to 18 detailed appeals related to its unrealistic escalation of below cost timber sales and road construction over its 50-year long range plan. As a result, the Chief of Forest Service remanded the LRMP and accompanying EIS, requesting a full revision of the plan to be completed by the fall of 1991.

We respectfully ask that our enclosed statement be printed in the hearing record, and that we receive a copy of the printed record.

Sincerely yours,

William T. Hardbarger

William T. Hardbarger
President, CRPA

WTH/nd

Atts.

STATEMENT OF WILLIAM T. HARDBARGER, PRESIDENT OF THE
COWPASTURE RIVER PRESERVATION ASSOCIATION OF
HCR 04, Box 71-A, Millboro, VA 24460
RE: HEARING RECORD ON FOREST MANAGEMENT

Mr. Chairman, members of the Subcommittee on Conservation and Forestry, the following statement is based on more than 10 years of study, administrative appeals and continuing efforts to persuade the Forest Service to provide more realistic guidelines in its management of the George Washington National Forest. In spite of these efforts, the GWNF presented in September 1986 a plan that, over the next 40-50 years, would escalate below-cost timber sales and permanent road building many times over its present rate.

Such an avalanch of public dismay, concern, and anger occured, resulting in a grand total of 18 administrative appeals, that the Forest Service could no longer ignore the public's demands. In September 1989, F. Dale Robertson, Chief of Forest Service, remanded the GW's long range Land and Resource Management Plan, and insisted on the plan being rewritten in its entirety and completed by the fall of 1991. The Chief listed new interim guidelines for the forest management, including (1) that timber sales could not exceed the 1986-87 level of planned sales; (2) that even-aged and uneven-aged management in timber harvest must be determined and documented during project-level analysis, with clearcutting selected only when it is determined to be the optimum method; and (3) that all appellants and the general public be given a chance to comment on any earth-disturbing project involving timber sales and road building.

To amplify and solidify the Chief's cautious start, we request that your Subcommittee make every effort to:

1. Phase out below-cost timber sales. This current program can choke out such other non-timber resources as scenic beauty, potential wilderness, fish & wildlife.
2. No more new construction of permanent timber roads. More are presently planned, but current road mileage is adequate for timber needs. Construction @ $45,000. per mile is not only expensive, but damages other resources: silted streams, eroded slopes, scarred visual quality.
3. Restructure Forest Service Budget. Continue efforts to reduce road funding. Earmark savings for neglected proms such as trails, wildlife, soil and water.

Respectfully submitted,

William T. Hardbarger
William T. Hardbarger
President, CRPA

Cowpasture River Preservation Association
HCRO4, Box 71A
Millboro, Virginia 24460

Listed below are the ACTUAL road miles developed for 88 & 89 as opposed to the George Washington National Forest Projection of 27.5 miles total Reconstruction and New Construction.

1988

Actual	53.7 miles at $45,000 per/mile
Proposed	27.5 miles
	26.2 over

1989

Actual	57.64 miles at $45,000 per/mile
Proposed	27.05 miles
	30.59 over

1990

Proposed 44.3 Miles

Listed Clearcutting of timber:

1988

Proposed	2522 acres
Actual	2677 acres

1989

Actual 2262 acres

1990

Proposed 2706 acres

Western North Carolina Alliance

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Mary Sauls Kelly,
Coordinator
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Administrator

13 November 1989

Senator Wyche Fowler, Jr.
Russell 204
Washington, DC 20510

Dear Senator Fowler:

The Western North Carolina Alliance of Asheville, NC would like to thank you for your leadership in calling for and holding recent Senate oversight hearings concerning management of National Forests lands in the Southeast.

Our organization works actively towards better management of Nantahala and Pisgah National Forests in North Carolina. You have already heard from us when we requested that you hold oversight hearings, and you may remember the WNC Alliance as the organization which sent the Chief of the US Forest Service over 16,000 signatures on a petition calling for better balanced management and alternatives to clearcutting. Our members, volunteers and consulting foresters spend many hours in the woods interacting with US Forest Service staff on individual timber sales. We are the only organization in our region which actively examines (and challenges, if necessary) all phases of Forest Service timber sale programs, including taking our own field data. Our "in-the-field" approach and experience gives us some unique insights.

I hereby submit the following brief testimony on behalf of WNC Alliance Forest Management Task Force, for inclusion in the public hearings records associated with the hearings held in Atlanta on October 30 1989. We hope you and you staff will find them a useful addition to the existing record.

Sincerely,

Mary Kelly

Mary Sauls Kelly, PhD
Coordinator, WNC Alliance

STATEMENT OF THE WESTERN NORTH CAROLINA ALLIANCE CONCERNING TIMBER PROGRAMS ON NANTAHALA AND PISGAH NATIONAL FORESTS, N.C.

Submitted 13 November 1989 by Mary Sauls Kelly, PhD, Coordinator, WNC Alliance, (P.O. Box 18087, Asheville, NC 28814 (704)258-8737).

The Forest Management Task Force of the Western North Carolina Alliance (WNC Alliance) submits the following comments to be placed in the public record for the Senate oversight hearings on U.S.D.A. Forest Service (USFS) timber sales programs, held 30 October 1989 in Atlanta, Georgia. The WNC Alliance, a non-profit 550-member "grassroots" organization based in mountain counties, is the only conservation organization in our region which regularly examines (and challenges) individual USFS timber sales on Nantahala and Pisgah National Forests based on field studies performed by our volunteers and consulting foresters. This gives us a unique perspective.

THE FOREST SERVICE ATTEMPTS TO MANAGE "ADVERSE SITES"

Our on-the-ground examinations of timber sales, studies of USFS planning documents, and regular interactions with USFS staff and researchers have led our members to conclude that USFS is "having difficulties" because it is attempting to manage for timber even on large portions of its lands which have been classified as "adverse sites," where "management opportunities are severely limited..." (Forest Statistics for the Mountains of NC, 1984, USDA Forest Service Resource Bulletin SE-77, p. 31). According to the 1986-2000 Land and Resource Management Plan (LRMP) (p. B-11) for Nantahala-Pisgah National Forests, almost 50% of the lands considered by USFS to be "suitable for timber production" are classified as "economically inefficient." Most of the timber sales we have examined throughout Nantahala-Pisgah are "below-cost sales," where roadbuilding and administrative costs exceed timber revenues. We have also been told by USFS timber staff that poor and inaccurate estimates of timber volumes and growth rates were used in the 1986-2000 Nantahala-Pisgah LRMP, which has also exacerbated the economic situation.

CURRENT HARVEST PROGRAMS MAY REDUCE FUTURE TIMBER QUALITY

The Forest Service often justifies sales in these areas by making assumptions that harvesting timber will increase the future quality and value of timber stands. Supervisor Bjorn Dahl has been quoted in the newspaper saying that many current stands are in poor condition and future stands will be three times more valuable. These statements do not seem to be supported by recent USFS research findings showing that oaks (the region's most valuable timber and wildlife food source) are being harvested but not reliably regenerated (replaced) on clearcut stands. A recent USFS study of the "performance" of commercial clearcuts (the primary harvest method) nine to eleven years after harvest found that "clearcutting with post-harvest felling of residuals has created stands less than fully stocked with desirable species, with a consequent loss of volume yield amounting to several thousands of board feet" (Loftis, 1989, USFS Technical Report SO-74).

On one of the two timber sales that WNC Alliance has formally appealed (the Roaring Hole Timber sale, Wayah District, Nantahala NF), our field studies showed that clearcutting had been prescribed when it was not the "optimum method" for regenerating oaks and quality timber on several stands. Although WNC Alliance has only limited time and finances to examine individual timber sales in detail, we believe our results may indicate forest-wide problems. USFS may have to expend considerably more care and expense and use alternative regeneration methods instead of clearcutting in order to perpetuate oaks (Loftis, 1989). WNC Alliance is particularly concerned that USFS plans to harvest on steep slopes, which requires use of cable logging equipment, will result in widespread reduction of oaks and their replacement by less valuable species. Clearcutting is currently the only type of harvest method considered practical for cable logging equipment.

TIMBER HARVEST PROGRAMS DO NOT PROVIDE CLAIMED WILDIFE BENEFITS

The Forest Service justifies many "sales-below-costs" in certain management areas by claiming that economic losses of timber harvesting are offset by benefits to wildlife which require early successional browse for food sources. The Forest Service also claims that gating roads protects sensitive wildlife from human disturbance. Recent research results and opinions of state game biologists do not support these claims.

WNC Alliance participated in a recent workshop sponsored by USFS "Wildlife Concerns in Implementing the Land and Resource Management Plan" (August 30, 1989, SE Forest Expertiment Station, Asheville, NC). At this workshop, several university researchers presented results of studies (sponsored by USFS) which indicated that provision of oaks and a variety of "hard mast" in present and future stands is critical for deer, turkey and bear. A study by Jim Wentworth, graduate student at the University of Georgia, showed that even deer do not need clearcut browse but do need oak and hard mast. A Clemson University study of wild turkey showed that turkeys make little use of clearcuts and that breeding turkeys abandon nests in areas where humans gain access on gated forest roads. Research on black bear by Dr. Michael Pelton and students at University of Tennessee has documented that bears' most critical need is a variety of oak mast, that even gated roads have dramatic effects on bear populations, and that bears avoid cable-logged clearcuts. At the workshop, these academic research results were backed up by the comments of state wildlife biologists from the North Carolina Wildlife Resources Commission. The same two concerns were mentioned repeatedly: 1) that USFS harvest programs should strive to provide a variety of oak and hard mast, and 2) that even gated roads pose severe threats to sensitive species such as bear and turkey. Clearly, USFS claims for wildlife benefits from timber harvest programs and associated roadbuilding should be carefully examined in light of these concerns.

CURRENT USFS PROGRAMS ARE INADEQUATE TO PROTECT RARE SPECIES

Existing inventory data on threatened, endangered, sensitive and proposed plant and animal species on USFS lands throughout the southern Applachians is woefully inadequate. The Forest Service has committed only a bare minumum of staffing and funding towards meeting its Congressional mandates to protect endangered species (Endangered Species Act) and biological diversity (National Forest Management Act). Despite the fact that the Southern Appalachians are a world-renowned center of plant diversity, up until very recently there has been only one Forest Service botanist to review programs from Texas to Florida and West Virginia, including the Appalachians. I have worked as a consulting biologist doing endangered plant surveys and biological assessments for four different federal agencies, and I am shocked at the extent to which the US Forest Service has failed to comply with the letter or the spirit of the Endangered Species Act. In temrs of this, the Forest Service lags fifteen years behind agencies such as Department of Energy, which do not even have broad mandates to protect biological diversity.

The Forest Service claims current procedures are adequate. WNC Alliance fieldwork on the Roaring Hole timber sale (Jackson County, Wayah Ranger District, Nantahala National Forest) has shown us that current procedures are not adequate. The Roaring Hole sale area was one of the few areas for which there were previous rare plant surveys, and these showed that populations of the federal candidate species Euphorbia purpurea were present. Yet even in this area with "high probability for occupancy," Forest Service staff failed to consult with NC state Natural Heritage program, as required. One of the units scheduled for clearcutting and later remanded for alternative harvest methods, was found during the growing season to contain the candidate species, many other plant species, and potentially to qualify as as state natural heritage area.

The great majority of USFS lands have never been surveyed systematically for rare plants and animals, yet the US Forest Service routinely conducts timber harvests, builds roads, and sprays herbicides in such areas under the assumption that "no information means no problem." The Forest Service must begin to conduct site-specific pre-construction and pre-harvest surveys for threatened and endangered plants and animals for each and every ground-disturbing activity. Failing to do so, the Forest Service is certain to find itself in a situation where timber programs will be demonstrated to have needlessly harmed threatened and endangered species or their critical habitat.

THE WILDERNESS SOCIETY

SOUTHEAST REGION

November 9, 1989

Senator Wyche Fowler, Jr.
Attn: Ben Yarbrough
Subcommittee on Conservation and Forestry
Agriculture Committee
U.S. Senate
Washington, D.C. 20510

Re: Atlanta Field Hearing Record

Dear Senator Fowler:

At the field hearing on October 30th, Chief Dale Robertson faulted your floor amendment to reduce forest roads funding by $65 million for putting the Forest Service in "an impossible situation." According to the Chief, the agency could not offer for sale the target level of 11.3 million board feet without full road funding. It would drop to only 9 billion board feet, said the Chief, under your amendment.

Could you please include and print in the hearing record the brief attached analysis by our staff economist and staff counsel. As they show, there would be no impact on timber sales in FY 1990 under your amendment and far less impact than predicted in future years. Moreover there would be many economic and environmental advantages if these reductions were directed at forests that sell timber below-cost.

Sincerely,

Peter Kirby
Peter Kirby

Lisa Huff
1819 Peachtree Rd, NE

suite 714
Atl 30309

ITE 714, ATLANTA, GA 30309
5-1783

MEMORANDUM

FROM: Mike Francis, Counsel for National Forest Issues
Richard Rice, Resource Economist

DATE: August 31, 1989

RE: Consequences of the $65 Million Reduction in Forest Road Appropriations

The Senate passed FY 1990 appropriations bill for Interior and Related Agencies includes an amendment introduced by Senator Fowler that would reduce spending on national forest road construction by $65 million. This amendment has caused the U.S. Forest Service and the timber industry to make greatly exaggerated claims of reduced logging and economic hardship while ignoring the benefits of the amendment.

A much more accurate assessment of the consequences of the Fowler amendment is as follows:

o **No impact on the Forest Service timber sale program in FY 1990.**

Roads needed for timber sales in FY 1990 are already in place or will be funded and constructed by the purchaser credit program (PCP) which is now budgeted at $140 million--30 percent *above* the level of FY 1988. This would bring total (appropriated and purchaser credit) funding for FY 1990 to $281 million, just $8 million less than total spending for roads in FY 1988 (includes enactment of Senator Fowler's $65 million cut in FRP, or forest road program, funds).

o **Far less impact than the Forest Service predicts on timber sales in FY 1991 and beyond.**

The Forest Service maintains that the Fowler amendment would allow the agency to sell no more than 9 billion board feet (bbf) of timber in FY 1990 and 8.5 bbf in FY 1991 and beyond. This assessment is unduly pessimistic and is not supported by the record of past road budgets and harvest levels.

The following table shows that FRP funding accounts for only about 20 percent of the roads built on the national forests in any fiscal year. In the Pacific Northwest, the purchaser credit program built six miles of road in FY 1988 for every mile built with appropriated monies.

Senator Fowler's amendment does not affect the PCP funding mechanism by which 80 percent of all timber roads are built and which the Forest Service now estimates will fund 30 percent more road miles than in FY 1988.

Past reductions in the agency's road budget have had little impact on the volume of timber cut or sold on the national forests. According to the Forest Service's latest annual report, the agency received an appropriation of $172 million for logging roads in FY 1988. This was $61 million less than the $231 million appropriated for roads in FY 1987. Despite this 26 percent reduction in funding, the volume of timber cut and sold fell only 0.1 bbf and 0.3 bbf respectively between 1987 and 1988. Similarly, in 1986, despite a $48 million reduction in FRP funding from the previous year, timber harvests actually rose by nearly 1.0 bbf. Based on past year's performance, the agency's prediction of an immediate 2.4 bbf drop in timber supply just does not hold water.

Finally, as shown, the Forest Service has consistently been able to build more miles of road than they were authorized to build in each of the past five years. In fiscal year 1987, the agency constructed nearly 125 percent of the road mileage authorized by Congress--with no additional funding.

FISCAL YEAR	1984	1985	1986	1987	1988
FRP Appro. ($ million)	233	229	181	233	172
FRP Miles Built (Authorized)	1168 (1195)	1903 (1649)	1251 (1167)	2394 (1960)	1352 (1338)
PCP Roads	5982	6184	5165	5482	5440
Timber Cut Volume	10.5bbf	10.9bbf	11.8bbf	12.7bbf	12.6bbf
Timber Sales Volume	10.7bbf	10.8bbf	11.0bbf	11.3bbf	11.0bbf

o **No measurable impact on the housing prices.**

According to the Forest Service, the national forests provide about 15 percent of the total wood volume harvested annually in the United States. A 1.0 bbf drop in harvests on the national forests would therefore mean a reduction in the domestic timber production of just over 1.0 percent. This is an insignificant portion of the total U.S. wood supply. At today's prices, western dimensional lumber and plywood make up less than 4 percent of the total price of an American family home. Thus, in an average home priced at $100,000, less than $4,000 goes for the purchase of lumber and plywood.

In addition, only part of the timber sold on the national forests is used in residential construction. A significant portion is made into paper, posts and poles, pallets, logs for vacation cabins, and other products that have nothing to do with residential home construction.

o Little or no impact on payments to counties.

All counties containing federal lands are guaranteed PILT payments (i.e., payments in lieu of taxes) of at least $0.75 per acre under 31 USC 6901-7. Since timber revenues on most national forests generate less than $0.75 per acre, total federal payments made to most countries would not be affected by reduced cutting on the national forests, particularly in areas where timber is sold at a loss.

o Large taxpayer savings and other economic and environmental benefits if the budget cut is allocated to national forests that sell timber below cost.

Congress should adopt the language of the House appropriations bill that directs all cuts in Forest Service funding to national forests that sell timber below cost. This approach would benefit U.S. taxpayers by:

- lowering direct road construction and sale preparation expenses,
- increasing net returns to the federal treasury, and
- reducing the damage done by subsidized logging to areas important for recreation, clean water, and the conservation of biological diversity.

According to TSPIRS, the Forest Service timber sale accounting system, in 1988 more than 3.1 bbf of timber from 74 national forests was sold at a loss to U.S. taxpayers. While this amounts to a mere 3.7 percent of total U.S. timber production, roughly $200 million was spent to access and prepare this timber for sale.

Roads costs are a major contributing factor to below-cost timber sales. Timber yields in below-cost-sale areas are extremely low and the timber is often located on steep slopes in remote areas. Thus, more miles of road and much more expensive roads are needed to access the least valuable timber on the national forests. Allocating reductions in funding for road construction to below-cost-sale forests would eliminate this needless waste and have significant economic and environmental benefits.

Friends of the Mountains
Box 368
Clayton, Georgia 30525

November 11, 1989

Senator W. Wyche Fowler, Jr.
Attn: Ben Yarbrough
Subcommittee on Conservation and Forestry
Agriculture Committee
U.S. Senate
Washington, D.C. 20510

Re: Atlanta Field Hearing Record

Dear Senator Fowler:

Friends of the Mountains commends you for your attempts to reduce funding of additional road building by the U.S. Forest Service. We strongly support your continued efforts to protect our irreplaceable soils, water, air, biological diversity and the recreation/education potential of our National Forests by phasing out below-cost timber sales, ending the construction of new permanent timber roads and restructuring the Forest Service budget.

The Forest Service has long justified its clearcutting and below-market timber sales on the basis of Congress's mandate that our National Forests be maintained primarily to provide low-cost timber and secondarily for recreation. We believe that emphasis should be primarily to preserve life support values, including water and soil management, carbon dioxide absorption, oxygen production and genetic diversity, as well as recreation and education. Timber sales on our National Forest lands should occur only when other valuable forest resources are not impacted and when the price obtainable is sufficient to cover the costs of administration and management.

1. Life Support and Biodiversity

THE LIFE SUPPORT FUNCTION OF THE NATIONAL FORESTS AND THE BIOLOGICAL DIVERSITY WHICH IT SUSTAINS--BOTH REGIONALLY AND WITHIN THE NATIONAL FOREST BOUNDARIES--IS THE CENTRAL ISSUE WHICH SHOULD CONTROL ALL OTHER DECISIONS AFFECTING USE OF FOREST RESOURCES.

Regionally, the Southeast has an abundance of rural, early successional habitat. Agricultural land, woodlots and even roadsides and backyards are early successional habitats subject to regular disturbance. These areas support excellent populations of species that thrive on disturbance.

What is fast becoming endangered in the Southeast, much more than a few listed species, is late successional habitat. Uninterrupted in structure and function for long periods of time, except by natural processes, these habitats manage our soils, water and air and support most of our listed threatened and endangered species.

While early successional habitats are occupied by species that are quite mobile and can deal with fragmentation very well, many late successional species are unable to travel very far or fast at all. Therefore, fragmentation of late successional habitat into little islands of wilderness along the Appalachians reduces genetic interaction within a species itself. This can leave many species unable to survive climatic cycles or acid rain, disease and catastrophic events such as drought and storm.

Opportunities for late successional habitat on private and commercial forest land are minimal. Only on public land are habitats of natural size and structure practical. For this reason, PROTECTION OF LATE SUCCESSIONAL HABITAT SHOULD RECEIVE PRIMARY EMPHASIS IN MULTIPLE USE PLANNING.

WITHIN THE NATIONAL FOREST BOUNDARIES, THE USE OF AGE DIVERSITY IS GIVEN TOO MUCH EMPHASIS, AT THE EXPENSE OF STRUCTURAL, SPECIES AND GENETIC DIVERSITY. Stands clearcut on the National Forest to "improve" age diversity are often planted in pine, which not only changes the natural mix of species but also may encourage unnaturally high deer populations. Herbicides are applied to hardwoods near each planted pine. No thought is given to which species are killed, further altering the mix of species. The managed pine stand is much more vulnerable to pests than is a natural forest.

Also victims of present harvesting methods are forest types or groups of species (both plant communities and natural environments), especially in moist coves and at higher elevations. Plant and animal species are interdependent within these groups and vulnerable when their habitat is degraded. These environments, such as northern hardwood communities, have already been fragmented by long-term climate change and are presently in precarious balance as relict environments even without any logging. Present harvesting policies are often applied for an entire watershed, without regard for altitude, soil depth, steepness of slope or specialized biotic communities. On the Chattahoochee National Forest it was found that the existing forest types, numbering 44, would be reduced to 12 if current management continues (Final Mixed Management Process Paper, June 26, 1989).

THE DIRECTIVE IN THE NATIONAL FOREST MANAGEMENT ACT OF L976 (NFMA) TO PROMOTE DIVERSITY NEEDS TO BE GIVEN GREATER EMPHASIS IN MANAGEMENT PLANNING. New legislation or amendments to ensure protection of diversity , such as H.R.1268 (The National Biological Diversity Conservation and Research Act) may be needed. The Committee of Scientists appointed by the Secretary of Agriculture to provide advice on the NFMA believed that its regulations "should go beyond a narrow and limited restatement of the language of the NFMA to assure that the Forest Service shall indeed "provide for" diversity by maintaining and preserving existing variety" (Final Report of the Committee of Scientists, 44 Fed.Reg. 26,609,1979). Variety crucial to forest function and survival is variety both among species and among groups of species. The Forest Service misinterprets true variety and substitutes even aged stands,contrary to Nature's own plan which has been highly effective for millennia. Current management makes sense only for the production of wood fiber.

2. Human Population and National Forest Resources

We must not underestimate the importance of providing quality environments for dispersed recreation within our National Forests. More than 7.5 million people live within a two-hour drive of the Appalachian

National Forests. The demand for dispersed recreation is continuing to grow, while the recreational land base is fixed. While local economies are growing more dependant on tourism and recreation services, opportunities to meet recreational demands on private and commercial forest lands are minimal.

Moreover, the effect of current timber programs upon visual quality is directly detrimental to tourism and the recreation experience.

Unlike timber sales and road building, dispersed recreation presents very few conflicts with the protection of water, soil, air and biological diversity.

3. Road Construction

Construction of new roads within the existing roadless areas of the National Forest promotes fragmentation of valuable late successional habitat. It is therefore not only in direct conflict with protection of biological diversity, but also the single largest source of sedimentation in mountain watersheds. Ironically, watershed protection has been an integral part of National Forest policy through all directives and regulating legislation. Increased road construction and the resulting sedimentation are contrary to the Forest Service's mandate to protect our watersheds.

In addition, new road construction in currently roadless areas adversely affects future opportunities for wilderness designation.

The money saved by building fewer roads could certainly be used elsewhere: on conservation, maintaining wilderness or perhaps even reducing the budget deficit.

4. Timber Programs

At issue is the displacement of private timber growing by subsidized, below-market government timber sales. On one hand the Department of Agriculture and various State governmental agencies encourage farmers to use their marginal farmland to grow timber. On the other hand, the Forest Service is frustrating this laudable effort by providing government timber at prices so low that these same farmers cannot compete with their own government at a profit. The Forest Service itself concedes, in its Southern Appalachian Timber Study (February 1988), that the only reason customers buy Forest Service timber is its below-market price.

WE ARE NOT ONLY ENCOURAGING DESTRUCTION OF THE NATURAL FOREST ENVIRONMENT AND DESTROYING THE MARKET FOR PRIVATELY GROWN TIMBER, BUT WE ARE ALSO SUBSIDIZING THE TIMBER INDUSTRY AT THE EXPENSE OF THE LONG-SUFFERING TAXPAYER.

In addition, the timber programs and the accompanying road construction are uses of the forest most often conflicting with other values, particularly Nature's management of soil, water, air and life forms in all their diversity.

IN SUMMARY, WE PROPOSE THE FOLLOWING:

1. That the Forest Service be directed to recognize society's need for the intact, natural forest as a life support system in all its biological diversity and to therefore provide for large tracts of late successional habitat of natural size and structure.

2. That the Forest Service be directed to increase emphasis on dispersed recreation, recognizing it as a non-consumptive use of the forest presenting very little conflict with protection of other forest resources.

3. That the Forest Service be directed to stop building new roads into present roadless areas and into areas of steep slopes and thin soils. Closure of roads impacting on water quality would be appropriate.

4. That timber programs, which adversely impact other forest resources more than does any other use, be made to pay for themselves.

Please include this statement in the printed record and mail a copy of the record to Friends of the Mountains at the above address.

Respectfully Submitted,

Jim P. Sull
James P. Sullivan
Past President

John J. Byrne
John J. Byrne, J.D.
President

Charles H Wharton
Charles H. Wharton, Ph.D.
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7 November 1989

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Senator Wyche Fowler, Jr.
ATTN: Ben Yarbrough
RE: Atlanta Field Hearing Record
Subcommittee on Conservation and Forestry
Agriculture Committee
U.S. Senate
Washington, D.C. 20510

Dear Senator Fowler:

I commend you on the quality of your inquiry during the October 30 field hearings addressing below-cost timber sales, roads, and biological diversity in our national forests. Your line of questioning was improved over that of the June 21 hearings in Washington, D.C. It is evident that you are quickly becoming one of the nation's brightest leaders in the conservation and wise use of natural resources. I also thank you for your earlier effort this year in attempting to cut the U.S. Forest Service road-building budget. It is regrettable that the measure did not pass in conference. I urge you to persevere in this effort and wish you better luck and success in the future.

With regard to the October 30 field hearings, three matters within the testimony with which I am familiar bear clarification for the record.

- First, Chief Dale Robertson was mistaken when he testified that no line item exists in the Forest Service budget for land management planning. Line items for land managment planning currently exist for all of the Forest Service programs, within the budgets called for in the forest plans and within the Congressional appropriations. The budget line item is called "Planning" and is given the code "M".[1] Land management planning for the the Southern Appalachian national forests from 1987 through 1989 accounted for less than four percent of total appropriations.[2]

The Chief also was mistaken when he implied that appropriations for engineering activities are regularly transferred to planning activities and other programs. This he implied in response to your questioning of why your proposed reduction in road funding would have put the Service in an "impossible" position. The Forest Service authority for reprogramming appropriations from one program, say engineering, to another program, say land planning, is limited to $250,000, or 10 percent (whichever is less) for each program across the entire National Forest System (120 forests). Only the Chief has the authority to reprogram appropriations within this limit. Reprogramming in excess of this amount must be approved by Congress.[3]

Formal reprogramming requests generally are submitted in an attempt to correct funding imbalances that would make it impossible or difficult to achieve planned program outputs and activites. Apparently, great institutional obstacles and reluctance exist that limit the use of reprograminng requests.[4] In short, great limitation exists for transferring appropriations for a given national forest program to another program without Congressional approval.

- Secondly, Senator, as an ecologist and wildlife biologist with substantial training in forestry, I appreciate that you have addressed the issues of sustainability of outputs/populations and biological diversity. However, I have been disappointed on two occasions, now, with the relative inability or unwillingness of your ecology witnesses to profess, with clarity and brevity, the current state of academic thought on biological diversity.

The subject is not as confusing as many would have you believe. It is painfully common for scientists to bemoan the vast realm of the unsure, the unknown, and the confused. I anxiously await the day when, as professionals involved in the public policy process, scientists have the gumption to profess the enormity and consequences of the many things we do know.

Generally, three well-accepted components of biological diversity prevail. These follow with what I trust will be suficient and clear explanation of meaning.

Components of Biological Diversity

1) **Number of species**. An increase in the sheer number of species in a defined area will increase the overall diversity in that area. Thus, diversity across the entire planet cannot be increased by humans. It can only be

increased by evolutionary processes. We merely strive to maintain the existing diversity on the planet by preventing untimely extinctions. The diversity of species within a smaller geographic division, a national forest for instance, can be increased through habitat alteration. This is, essentially, the current U.S. Forest Service policy toward biological diversity - increasing the number of species found within a given national forest often to the detriment of sensitive species or species that are regionally or nationally rare.[5]

2) **Genetic diversity** ,exists between individuals of the same species, between populations of the same species, and between different species. Through its genetic code, each species, each individual of a species, and each population of a species is adapted to a unique set of circumstances by past, present and future interactions with those of its own kind, those of other species, and the physical and chemical environment. Changes in the mixture of interactions must be accompanied by responses that are genetically encoded. If environmental change is to abrupt, to complete, or to severe, species may not be genetically predisposed to respond in a manner that will sustain them, and so may be diminished or extinguished altogether.[6]

3) **Ecosystem diversity** exists across and within a region, landscape, or physiographic area. This is distinct and definable assemblages of organisms occuring in different phusical settings. As ecosystems become fragmented, their areas are decreased and replaced by some other physical setting.[7]

The current thinking in conservation biology is that forest fragmentation has deleterious effects on many populations of plants and animals through reduction of suitable foraging, breeding, and dispersal habitat, through introduction of directly and indirectly competitive species, through increased access by poachers and hunters, through swift and long-term changes in community structures, nutrient cycling, and microclimates, and through more that we know and, yes, do not know. The newly formed Journal of Conservation Biology, published since 1987, and several other biological journals have article after refereed article that concur with this supposition.

Dr. Boring's definition of landscape diversity suggested a scale encompassing a national forest. This scale is significantly smaller than that which is generally accepted in the literature for "landscape", a term which is given to include an entire, definable physiographic province.[8] The entire Unaka Province - i.e., the Appalachian mountains in geological parlance - is such a landscape.

Dr. Boring's testimony left one with the impression that the Forest Service is managing well for the conservation of biological diversity. He failed to declare that the U.S.F.S. management policy for biological diversity calls for increasing the amount of young, even-aged forest in this regional landscape by clear-cutting large patches of forest and building roads into the last remaining remnants of unruptured forest ecosystem in the Southern Appalachians.

This management policy emphasizes further fragmentation of locally and regionally rare tracts of contiguous forest existing in a divinely old physiographic region. This region supports nationally and globally unique assemblages of plants and animals. The agency's policy presages a reduction in forest cover type diversity and a reduction of older forests that have climax or dynamic equilibrium characteristics.

To borrow a recent statement from Carl Sagan regarding the similar carnage of the world's tropical rainforests, "this is stupid!" The national forests are surrounded and fragmented by cleared and developed land. Private forests now, and in the future, will receive a great deal of pressure for extractable commodities (timber and development chiefly among them). Thus, without monumental changes in landowner motivations, we cannot look to private lands to support large tracts of unbroken, old forest. At the moment, public lands are the last remaining areas that can provide these amenities.

The agency's ill-conceived activities are neither justified by the fact that the forest plans call for this habitat fragmentation, nor by the fact that the Forest Service promises to implement the conspicuous plans. Professionally and personally, I remain unconsoled, Senator.

- Lastly, I believe it was to Regional Forester Jack Alcock that you asked how the Forest Service responds allegations that their Management Indicator Species (MIS) are inappropriate. I state that the allegation has substance and merit, and further allege that the use of MIS is an imprudent practice all together. The use of one species to indicate the relative abundances of other species, densities of other species populations, or as an indicator of ecosystem function and quality has no sound empirical basis and is conceptually flawed.[9] I have enclosed a reference on this subject for your edification at your leisure.

Senator, the most cheerful estimates put the Earth's population at 10 billion before the rate of growth even begins to show a noticeable decline.[10] The most recent Bureau of Census figures indicate that your own hometown, Atlanta, Georgia (metropolitan area), will grow from its current 2.74 million to 3.3 million in the next 30 years.

The Wilderness Society estimates that the Southern Appalachian National Forests and the Great Smoky Mountains National Park, 3.5 million acres, visitors per annum.[11, 12] That can be described as:

- 16 million people per acre per year, or
- 43,836 people for each acre every day,
- or one person on every square foot of public land each day...and growing.

I won't argue that the distribution of use and impact is equal on every acre, it is not, but I think you probably comprehend the implications of my illustration.

As a citizen of your beautiful neighboring state, Tennessee, and as a descendent of many generations of Southern Appalachian highlanders, I reiterate my heartfelt thanks to you for your efforts to protect these valuable Southern and national resources, and I remain

Respectfully yours,

Lisa C. Huff

Lisa C. Huff,
Resource Ecologist
and Stanley Fellow
for The Wilderness
Society

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November 10, 1989

Senator Wyche Fowler, Jr.
Attn: Ben Yarborough
Subcommittee on Conservation & Forestry
Agriculture Committee
U.S. Senate
Washington, DC 20510

Re: Atlanta Field Hearing Record

Dear Senator Fowler:

The Southern Environmental Law Center appreciates your recent efforts to hold a Committee on Agriculture, Nutrition, and Forestry hearing in Atlanta on October 30, 1989 to gather further information about the impact of sales-below-cost and forest road construction on the national forests in the Southern Appalachians. We are also well aware of your efforts on the Senate floor to reduce funding for Forest Service road construction. Your actions are greatly appreciated by those of us in the South and across the nation who are working to ensure proper management of our national forests.

Enclosed is a Joint Statement for inclusion in the hearing record. I request that the statement be included in the printed record and that you mail me a copy of that record when it becomes available.

Thank you again for your efforts on behalf of wise management of our national forest resources.

Sincerely,

Lark Hayes
Attorney

LH/pad

Enclosure

cc: David W. Carr, Jr.
Honorable James McClure Clarke

JOINT STATEMENT OF LARK HAYES AND DAVID W. CARR, JR. ATTORNEYS, SOUTHERN ENVIRONMENTAL LAW CENTER, BEFORE THE SENATE AGRICULTURE COMMITTEE'S SUBCOMMITTEE ON CONSERVATION AND FORESTRY

Mr. Chairman, members of the Committee, we appreciate the opportunity to present testimony to the Subcommittee on Conservation and Forestry on the important issues of sales-below-cost and forest road construction on national forests in the Southern Appalachians. We commend Subcommittee Chairman Wyche Fowler, Jr. and other members of the Subcommittee on their efforts to hold a hearing in Atlanta on October 30, 1989 to explore these issues and to enable concerned citizens to participate in their deliberations.

Our comments are based in large part on our experiences as attorneys representing conservation organizations in their efforts to secure proper management of the national forests in the Southeast. The Southern Environmental Law Center, a public interest law firm with offices in Charlottesville, Virginia and Chapel Hill, North Carolina, has represented environmental and wildlife groups in appeals of the Management Plans for the Jefferson National Forest in Virginia and the Pisgah-Nantahala Forests in North Carolina. We also are involved with site-specific controversies involving proposed timber harvests and road building projects.

Excessive road construction and below-cost sales have been important issues in both appeals in which we have appeared. Through our appeal of the Jefferson National Forest Management Plan, we were able to reduce the proposed road construction mileage significantly. However, the Forest Service still plans to build an average of 20 miles of new road per year over the next decade. The cost of building these roads will often exceed the revenues generated from the subsequent timber sales. The Forest Service's own accounting (which we believe underestimates timber losses) demonstrates that the Jefferson lost $1.4 million on its timber program in fiscal year 1988. These money losing roads will adversely impact wildlife and recreational opportunities. These forests, which are most valuable for their recreation use, already have plenty of roads to meet recreational needs. While the Forest Service often tries to justify road construction by claiming that non-timber benefits will occur, these benefits are marginal, if they exist at all.

On the Pisgah-Nantahala Forest the Forest Service has similar plans for an aggressive road building program and expansion of the below-cost timber sale program. On these Forests we are particularly concerned that new roads and more sales will adversely effect areas of tremendous wilderness potential, as well as lose money. To make matters worse, the Plan's impact on these potential wilderness areas was not even addressed as an issue in the environmental impact statement accompanying the Plan. Under the Plan, more than half of the remaining roadless acres on the Forest were zoned for timber management and site-specific projects which have grievous consequences for these important areas have been undertaken, and more are planned. We need the help of Congress in curbing road construction and below-cost sales which threaten the future wilderness areas on our Forests.

Accordingly, we specifically suggest that the Subcommittee pursue a phasing out of below-cost timber sales and a significant reduction in the construction of new roads, especially permanent roads. These actions will facilitate the restructuring of the Forest Service budget to support currently neglected programs such as trail construction and maintenance and acquisition of important lands.

We at the Southern Environmental Law Center are appreciative of your efforts and remain available to assist you in your future actions on behalf of the national forests of the Southern Appalachians.

Sunrise, Mt. McKinley Ansel Adams

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November 10, 1989

Senator Wyche Fowler, Jr.
Attn. Ben Yarbrough
Subcommittee on Conservation and Forestry
Agriculture Committee
U.S. Senate
Washington, D.C. 20510

Re: Atlanta Field Hearing Record

Statement of Federico Cheever, Attorney, Sierra Club Legal Defense Fund on efforts to protect the Red-Cockaded Woodpecker in the southern national forests before the Senate Agriculture Committee's Subcommittee on Conservation and Forestry

Dear Senator Fowler:

I regret that a representative of the Sierra Club Legal Defense Fund was unable to attend the hearing held before your Committee on October 30, 1989 in Atlanta, Georgia. However, we believe that a number of statements made by representatives of the timber industry require a response. Accordingly, we offer this written statement.

For many years, the Sierra Club Legal Defense Fund, on behalf of the Sierra Club and The Wilderness Society, has been engaged in an effort to protect the endangered Red-Cockaded Woodpecker.[1] Once common in the pine forests of the southeastern United States, the woodpecker has been pushed to the brink of extinction by unrestrained logging and the conversion of forest land to other uses. Approximately 75% of the known active Red-Cockaded Woodpecker colonies are on national forest land. Perhaps more than any other species, the fate of the Red-Cockaded Woodpecker is in the hands of the United States Forest Service.

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[1] The Red-Cockaded Woodpecker is a federally listed endangered species that evolved and prospered in the open pine woodlands of the south. The roost cavities in which Red-Cockaded Woodpeckers live are almost always excavated in living, mature pine trees (80 to 120 years of age). The Red-Cockaded Woodpecker is a cooperatively breeding species. Within a "clan" of birds, only one pair of birds breeds. Other mature clan members, usually males,

The Red-Cockaded Woodpeckers on national forest lands are in trouble. In 1986, there were approximately 2,115 active Red-Cockaded Woodpecker colonies (of one or more birds) on 21 national forests in the Southern Region. Sixty-six percent of the national forest woodpecker populations included less than 50 colonies, a small fraction of the 250 to 500 colony minimum viable population level.[2] Sixty-seven percent of all national forest populations were declining. Five populations had disappeared since 1970. R. Costa & R. Escano, Red-Cockaded Woodpecker -- Status and Management in the Southern Region in 1986. Since 1986, woodpecker populations have continued to decline. Earlier this year one of the largest and most stable Red-Cockaded Woodpecker populations, located on the Francis Marion National Forest in South Carolina, was decimated by hurricane Hugo.

Two factors are primarily responsible for the decline of the Red-Cockaded Woodpecker. The first is commercial even-aged timber management. The second is the growth of hardwood trees among the pines. This hardwood "midstory encroachment" occurs because the frequency of fire, which naturally suppresses hardwood growth in the southern pine ecosystem, has been reduced. See J. Ligon, P. Stacey, R. Conner, C. Bock, C. Adkisson, Report of the American Ornithologists' Union Committee for the Conservation of the Red-Cockaded Woodpecker, 103 Auk 848, 849 (1986).

Even-aged timber management, -- timber management that promotes the development of stands of trees which are all the same age by cutting down all the trees at once (clearcutting) or by cutting them down over a short period of time (seed tree cutting or shelterwood cutting) -- harms the Red-Cockaded Woodpecker in a number of ways.

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serve as nest helpers. A clan of birds live in a "colony" of cavity trees. Colonies may include from 1 to 30 cavity trees, usually within a relatively small area.

[2] See Reed, Doerr & Walters, Minimum Viable Population Size of the Red-Cockaded Woodpecker 52(3) J. Wildl. Manage. 385-391 (1988).

First, commercial even-aged management usually removes trees before they grow old enough to become Red-Cockaded Woodpecker cavity trees. Red-Cockaded Woodpeckers rarely nest in trees less than 80 years old and commercial even-aged timber management systems rarely let trees grow to be 80 years old. The shortage of mature pine trees that even-aged timber management creates prevents Red-Cockaded Woodpeckers from establishing new cavities or new colonies and forces them to excavate cavities, if at all, in immature or otherwise inferior trees, limiting their chances for survival. As the old trees in which the woodpeckers reside die out, the woodpeckers cannot find suitable trees to replace them.

Second, commercial even-aged timber management reduces the pine surface area on which Red-Cockaded Woodpeckers can forage. Red-Cockaded Woodpeckers eat insects which they find in the bark of pine trees. The older and larger a pine tree is, the more bark surface area it provides for the woodpecker to forage on. When an area within the home range of a Red-Cockaded Woodpecker colony is cut under an even-aged management system, that area becomes useless for Red-Cockaded Woodpecker foraging for at least 30 years. The woodpeckers that might have foraged there must go elsewhere to forage. Often this means that the woodpeckers must fly farther. This extra expenditure of energy lessens the colony's chances of surviving or producing young. Long foraging trips may also subject the woodpeckers to greater risks of predation.

Third, commercial even-aged management often increases the density of mature pine stands, making them unsuitable for Red-Cockaded Woodpecker nesting and foraging. After a stand of trees is cut down, a new "crop" is established on the site. Under commercial even-aged management, the object is to produce the greatest amount of wood fiber per acre. Therefore, timber managers try to squeeze as many trees as they can into the newly "regenerated" stand. These high density stands do not provide habitat for Red-Cockaded Woodpeckers which evolved in the open park-like environment of the mature southern pine forest.

Fourth, commercial even-aged harvesting fragments Red-Cockaded Woodpecker habitat by creating large unforested patches in the woodpeckers' home range. These open areas force the woodpeckers to fly farther to forage and increase their vulnerability to predators by forcing them to fly in the open. Habitat fragmentation also has a detrimental effect on woodpecker breeding. Red-Cockaded Woodpecker clans usually only contain one mature female bird. Other female birds born in the clan leave after they have fledged. These "floating females" fulfill an essential function. Clans that have lost their breeding female can attract another floating female to replace her. For female Red-Cockaded Woodpeckers to fulfill this function, they must survive as they migrate from colony site to colony site. Habitat fragmentation caused by even-aged management lessens their chances for survival, thereby lessening that chance that a clan in need of a female will be able to attract one.

Hardwood encroachment, which results from the reduction in the frequency of fire in the southern pine ecosystem, also harms the Red-Cockaded Woodpecker. In a natural fire-maintained southern pine forest, frequent ground fires suppress the growth of brush and hardwoods while leaving mature pine trees relatively unscathed. When the frequency of fire is reduced, the hardwoods grow unchecked, often outcompeting the less shade-tolerant pine trees. As hardwoods grow up around the mature pines they degrade woodpecker habitat by lessening the foraging area available to the woodpeckers (woodpeckers cannot forage on the pine trunks surrounded by the dense hardwood midstory) and by increasing the vulnerability of woodpecker cavities to tree-climbing predators.

In his statement to this committee, Robert Pollard of the Southeastern Lumber Manufacturers Association stated that he believed the Forest Service had "gone overboard at the expense of the timber industry" in its efforts to protect the Red-Cockaded Woodpecker. Nothing could be further from the truth. In 1989, almost twenty years after the Red-Cockaded Woodpecker was listed as an endangered species, the Forest Service took the first meaningful steps toward reversing the species' downward population trend and preventing its extinction. We can only hope that these steps were not taken too late.

In 1970, the Red-Cockaded Woodpecker was listed as an Endangered Species. In 1979, the United States Fish and Wildlife Service approved a "Recovery Plan" for the Red-Cockaded Woodpecker. The plan called for the preservation of a minimum habitat area for each Red-Cockaded Woodpecker colony, "at least 200 acres of contiguous pine or pine-hardwood forest, including the colony site, for feeding and for replacement of cavity trees." In 1979, the Forest Service incorporated the recommendations of the Recovery Plan into its Wildlife Habitat Management Handbook. Red-Cockaded Woodpecker populations continued to decline. Nonetheless, in 1985, the Forest Service and Fish and Wildlife Service promulgated a revised Red-Cockaded Woodpecker management program scaling back the protection provided. The 1985 program recommends that each colony be protected by a 200 foot buffer around each cavity tree and by the maintenance of 125 acres of foraging habitat within one-half mile of each colony site. Independent scientists severely criticized the 1985 Recovery Plan revision. See American Ornithologists' Union Committee Report, pp. 850-851.

On June 17, 1988, Judge Robert Parker of the United States District Court for the Eastern District of Texas found that Forest Service management of the Red-Cockaded Woodpecker in Texas violated the Endangered Species Act. In reaching its decision, the court relied on scientific evidence presented by the Sierra Club Legal Defense Fund at a four-day trial and evidence of dramatic declines of woodpecker populations on the national forests in Texas. The court enjoined the Forest Service to maintain the area within 1,200 meters of each Red-Cockaded Woodpecker colony site for the woodpecker and to allow only selection timber management within that area. Sierra Club v. Lyng, 694 F.Supp. 1260, 1278 (E.D. Tex. 1988).

Finally, in March 1989, in the face of the Texas decision and new dire statistics demonstrating the likelihood of the extinction of the species in the near future, see R. Costa & R. Escano, Red-Cockaded Woodpecker -- Status and Management in the Southern Region in 1986, the Forest Service imposed a moratorium on "regeneration" timber harvesting in woodpecker habitat on fourteen national forests outside Texas. At the same time, the Forest Service initiated a study process to evaluate its woodpecker management policy. We applaud this Forest Service action.

In light of the documented woodpecker population declines and the clear connection between the destruction of woodpecker habitat and commercial logging, See American Ornithologists' Union Committee Report, p. 849, the Forest Service opted for the only responsible course of action. Any charge that this cutting moratorium and policy reevaluation constitutes "going overboard" ignores the Forest Service's legal obligations to manage the national forests for multiple use and to protect and conserve endangered species.

Mr. Pollard also states that "the [Red-Cockaded Woodpecker] is not the real issue in these policy changes." He states that "[w]e are convinced that as the preservationists have used the Spotted Owl to prevent the harvest of timber in the Northwest, they are using the Red-Cockaded Woodpecker to prohibit the harvesting of yellow pine timber in the South." Again, nothing could be further from the truth.

First, the preservation of endangered species is itself a first-level priority for both environmental groups and the nation as a whole. The importance of preserving what remains of the biological diversity of our nation and planet cannot be overestimated. The Sierra Club Legal Defense Fund's work to protect whales, whooping cranes, ocelots and a panoply of other endangered species that do not require mature forests as habitat belies any charge that our interest in endangered species is merely a ruse to stop logging.

Second, the survival of the Red-Cockaded Woodpecker is not at odds with logging on national forest lands. Indeed, the survival of the Red-Cockaded Woodpecker depends on logging. The Red-Cockaded Woodpecker evolved in the open savannah-like pine forest that covered much of the American south a century ago. That Forest is, for the most part, gone. The frequent natural fires that created those savannah-like conditions are suppressed or limited. Now the Red-Cockaded Woodpecker depends on humans to thin its habitat to approximate that primeval condition. In many cases, that habitat thinning is achieved most efficiently by careful selective timber cutting.

Good woodpecker habitat management requires timber cutting, but proscribes even-aged management -- traditional clearcutting, seed tree cutting and shelterwood cutting. These cutting methods do not thin the forest, they destroy it by removing all the trees in a logged area. On the other hand, forms of selection or uneven-aged timber management -- timber management systems that promote the development of stands of trees with a diverse age distribution -- leave trees. Under selection or uneven-aged management individual trees or small groups of trees (up to a few acres) are cut down. Selection management allows timber harvesting while at the same time retaining and enhancing the wildlife habitat characteristics of the forest. The trees left after a selection cut provide for natural reseeding, protect the fragile forest soil and, provide habitat for the Red-Cockaded Woodpecker.

Mr. Pollard states that the Forest Service's new concern for protecting the Red-Cockaded Woodpecker and the Endangered Species Act court injunction imposed on the national forests in Texas have affected 66 timber sales and resulted in a loss of 17.1 million board feet of timber is fiscal year 1989. This is a tiny fraction of the annual sales of the Southern Region and a very small price to pay for preservation of this endangered species.

Sincerely,

Federico Cheever

Federico Cheever
Rocky Mountain Office

SIERRA CLUB - Tennessee Chapter
Hugh Irwin
FORESTRY Chair
3200 Haggard Drive
Knoxville, TN 37917

November 8, 1989

Senator Wyche Fowler, Jr.
Attn. Ben Yarbrough
Subcommittee on Conservation and Forestry
Agriculture Committee
U.S. Senate
Washington, D.C. 20510

Re: Atlanta Field Hearing Record

Dear Senator Fowler:

Your efforts in holding a hearing on forestry issues relating to below-cost sales and road building are very timely and needed. Your efforts in this area are appreciated.

Please find enclosed a statement for the Atlanta Field Hearing Record. Please include this statement in the printed record of the hearing. I would have liked to be present at the hearing to testify in person, but unfortunately this was not possible. However the Tennessee Chapter of the Sierra Club would very much like its input to be a part of the record.

Please mail me a copy of the printed record when it is completed. This would be greatly appreciated.

Sincerely,
Hugh Irwin
Hugh Irwin
Forestry Chair

Recyclable "Not blind opposition to progress, but opposition to blind progress" Recycled Paper

SIERRA CLUB - Tennessee Chapter

STATEMENT OF HUGH IRWIN, FORESTRY CHAIR OF THE TENNESSEE CHAPTER OF THE SIERRA CLUB ON TIMBER SALES BELOW COST AND FOREST ROAD CONSTRUCTION BEFORE THE SENATE AGRICULTURE COMMITTEE'S SUBCOMMITTEE ON CONSERVATION AND FORESTRY

Mr. Chairman, the Tennessee Chapter of the Sierra Club would like to thank you for holding hearings on national forest timber sales-below-cost and forest road construction. Your leadership and vision in attempting to limit destructive and damaging practices on our national forests and forge a new direction is greatly appreciated. I regret that I could not be at the hearing in person, but please include this statement in the printed record of the hearing. I would also appreciate a copy of the printed record when it is completed.

The Tennessee Chapter of the Sierra Club is very concerned about below-cost timber sales on the Cherokee National Forest. The great value of Cherokee National Forest (and other national forests in the region) is not their timber but their biological diversity, their wildlife habitat, their scenic beauty, their recreational potential, and their clean water. Besides the obvious waste of funds that below-cost sales represent, the practice destroys or damages many of these values. It makes no sense to degrade these very valuable attributes of our mountains in order to harvest timber. This is especially true when the timber does not even return to the national forest what is spent to remove it! Cherokee National Forest is below-cost at present. In 1988 it lost at least one million dollars (by forest service figures). It could be strongly argued that this loss is an underestimate, but even these figures should cry out against the increase in timber harvest that is planned. Below-cost timber sales at the expense of other values that have more inherent value, such as the maintenance of intact ecosystems and biodiversity, is contrary to the land ethic that should be guiding national forest management. Below-cost timber sales should be phased out.

"Not blind opposition to progress, but opposition to blind progress"

In order to harvest an increased amount of timber, the forest service in the Cherokee National Forest would build new roads to access more remote areas. Of course road building is the most expensive part of timber harvest costs. It is also one of the most environmentally destructive aspects of timber harvest. Many of these destructive aspects such as erosion and siltation are obvious. Others such as the fragmentation of wildlife habitats are more subtle. At the present many areas of Cherokee National Forest exceed road density guidelines as established in the forest plan. This has negative impacts on such animals as the black bear. More roads would only worsen this situation. Even if roads are "closed", this still does not undo the erosional damage or much of the fragmentation. Present "closed" roads are frequently used illegally. But the most important point is that these roads would be built primarily to access below-cost sales. For many reasons, not least of which is the integrity of forest ecosystems, construction of new permanent timber roads should be ended.

We appreciate your efforts to reduce the funding for road construction on the national forests. We hope that you will continue this effort. We would hope that some of the savings in road construction could be invested in programs that are presently neglected such as trail maintenance and construction, land acquisition, and to fund staff botanists and wildlife scientists. Trails in Cherokee National Forest are presently poorly maintained, planned, and coordinated; newly designated wilderness areas receive little planning or management; key lands and corridors are unacquired. There is minimal funding for these management areas at present. There is only one wildlife manager and no botanist on staff at present. These areas desperately need more funding.

SOUTH CAROLINA FOREST WATCH
"Protecting Our Natural Resources"
P.O. Box 657 Westminster, S. C. 29693

November 3, 1989

Senator Wyche Fowler, Jr.
Attn. Ben Yarbrough
Subcommittee on Conservation and Forestry
Agriculture Committee
United States Senate
Washington, D.C. 20510

Re: U.S.F.S. Oversight Hearings

Dear Senator Fowler:

Thank you very much for conducting the recent U.S. Forest SErvice oversight hearings in Atlanta, Georgia.

Our South Carolina Forest Watch supports your efforts to acheive better management and more responsiveness to the public's needs in our southern Appalachian National Forests.

The Forest Service should eleminate logging on lands where revenues do not recover the government's cost of timber management, sales administration, and logging road construction. The Forest Service should also reform its timber pricing system so that it receives fair market value with cost recovery as a minimum requirement.

There should be no more permanent timber roads constructed. Road construction causes the greatest environmental damage of any Forest Service activity. Logging should be limited to existing roaded areas.

The Forest Service budget should be restructured to provide greater public benefits. Timber production and road building should be reduced and increases should be made for recreation, soil and water conservation, wildlife management, and land aquisition.

The Forest SErvice should also help efforts in state and private forestry.

Sincerely yours,

Bruce A. Hare
President
S.C. Forest Watch

Route 4, Box 232
Brevard, NC 288712
November 10, 1989

Senator Wyche Fowler, Jr.
Attn: Ben Yarbrough
Subcommittee on Conservation and Forestry
Agriculture Committee
U. S. Senate
Washington DC 20510

Dear Senator Fowler:

I am writing in support of the move to reduce below-cost timber sales in the National Forests in our area, in support of efforts to reduce further road construction in the same area and in support of the possible use of controlled burning as a sylviculture method.

As for below-cost sales, this is simply unacceptable economics which unduely gives timber production a greater value than other uses of the National Forests. Much below value sales, as has often been the case for some time now, means we are disposing of wood at a much lower return than its value for other purposes such as recreation, wildlife, air cleaning, water generation and purification and stream maintenance. Evidently the demand for timber in our area could be easily met from private lands which as a whole are much more easily harvested.

Road construction and maintenance is one of the most damaging human activities in the forest, especially in mountainous terrain, and should be reduced to the lowest practical level. Over-construction of forest roads, moreover, is one of the reasons for the low net income from timber sales.

Having been reared in the Smoky the Bear era, I should be opposed to burning under any circumstances. However, as a biologist I am aware that fire is a part of all natural forest systems and that at appropriate intervals fire enhances the forest. While we could wait for nature to take its course with fires from lighning, controlled fires, especially where fire prevention or suppression has been practiced, is a much better management practice. I, therefore, favor controlled burning when it is carried out with due respect to the various values of forests for recreation, scenic beauty, wildlife, etc. Certainly a not-to-be-neglected value of controlled burning is that it helps maintain biodiversity in the forest, a value we are appreciating more and more.

I appreciate the opportunity to comment on these matters and appreciate your leadership in efforts to improve forest management in our nation.

I would appreciate my statement being added to the record of the October 30th hearing held in Atlanta.

Sincerely,

John A. Freeman
Emeritus Professor of Biology
Winthrop College

WALTON R. SMITH
FOREST PRODUCTS CONSULTANT
221 Huckleberry Creek Road
Franklin, N.C. 28734
November 8, 1989

Senator Wyche Fowler Jr.
U.S. Senate
Washington, DC 20510

Dear Senator Fowler,

This letter is submitted for inclusion in the record of the Public Hearing of the Senate Agricultural Committee's Subcommittee on Conservation and Forestry, October 30, 1989, Atlanta, Ga.

I worked for the Forest Service from 1934 to 1969 in National Forest Management and in Forest Service Research and have been a Forest Products Consultant since my retirement from the Forest Service.

For 50 years the Forest Service practiced uneven-aged management with selective cutting in hardwoods of the National Forests; there was no such thing as below cost sales and the forests were continuously improved in quality by this practice. The introduction of even-aged management with clearcutting in hardwoods during the sixties changed the picture; over half of the cut has been small hardwoods that were sold for chips at a very low price thus reducing the income from timber sales while raising the cost. There is no good reason for even-aged management on 97 percent of the Nantahala-Pisgah Forests as called for by the Plan, when we know and the record shows that management by uneven-aged silviculture is successful and profitable. There is no lack of timber to meet the necessary goals, if the harvesting is done properly.

System roads are being pushed through the Forests at a very high cost for the sole purpose of extracting timber, and the costs are often attributed to pre-roading and not charged against the timber sales. These roads are then closed to the other uses of the Forests by the public, for recreation, for aesthetics, for hunting, or for other public purposes. They are open only to the logger. Such roads should be paid for by the timber harvest if they are justified by the sale; otherwise they must be justified by public use of the roads.

Sincerely yours,

Walton R. Smith

C·L·U·B
PROPERTIES

November 9, 1989

Senator Wyche Fowler, Jr.
Attn: Ben Yarbrough
Subcommittee on Conservation and Forestry
Agriculture Committee
U.S. Senate
Washington, DC 20510

Re: Atlanta Field Hearing Record

Dear Senator Fowler:

I am writing to support the proposed changes in Forest Service practices. As a real estate developer, I am sympathetic to the needs for continued growth, but there is no justification for tax payer dollars subsidizing the profits of timber companies. The Forest Service must stop its below-cost timber sales and weigh more carefully the potential benefits of preserving scenic beauty, fish and wildlife for future generations.

Georgia is rich in timber resources, and I am a supporter of timber as a renewable resource. I believe, however, that the appropriate locations for timber farms are in areas of Central and South Georgia, where the land is flat, the climate is warm, and timber harvesting can be done economically without damaging pristine environments. Mature stands of forests in North Georgia are not the appropriate place for timber farming. Access is difficult and expensive and, most important, these mountains hold irreplaceable value for tourists, hikers, hunters and fisherman. This resource must be protected for future generations of Georgians.

I would like to thank you for your work this past year to reduce the road construction budget for the forest service. We need to end the continued construction of new permanent timber roads in our national forests. They scar beautiful vistas and silt good fishing streams. The road system that is currently in place is adequate for a balanced program of timber harvesting.

5901 Peachtree Dunwoody Road Suite 200-A Atlanta, Georgia 30328 (404) 396-1520 FAX (404) 396-4494

I have read the statement of Peter Kirby representing The Wilderness Society, and am in agreement with the content of his presentation to the Subcommittee.

Thank you for your continued support of Georgia's natural heritage.

With best wishes.

Sincerely,

Randolph N. Wentworth
President
Urban Development Division

RNW/mrr

cc: Atlanta Journal and Constitution
Mr. Bob Kerr
Mr. Peter Kirby
Congressman John Lewis
Senator Sam Nunn

SIERRA CLUB
North Carolina Chapter

David Blanchard-Reid
Public Lands Chair
The Sierra Club
North Carolina Chapter
124 Mockingbird Rd.
Swannanoa, N.C. 28778
November 6, 1989

Senator Wyche Fowler, Jr.
Attn: Ben Yarbrough
Subcommitee on Conservation and Forestry
Agriculture Committee
U.S. Senate
Washington, D.C. 20510

Re: Atlanta Field Hearing Record

STATEMENT OF DAVID BLANCHARD-REID
PUBLIC LANDS CHAIR
THE NORTH CAROLINA CHAPTER OF THE SIERRA CLUB

Mr. Chairman, members of the subcommittee, thank you for the opportunity to present a written statement for the record on behalf of the close to 10,000 members of the N.C. Chapter of the Sierra Club. As Public Lands Conservation Chair of this organization, I have become familiar with the damaging effects of road construction and increased timbering, often at a loss to taxpayers; most certainly at the expense of the fragile Southern Appalachian forests.

The N.C. Chapter of the Sierra Club is aware of your efforts to reduce the amount of destructive roadbuilding in these forests through the budget process. We thank you and congratulate you for successfully passing an amendment in the Senate to reduce the Forest Service's roadbuilding budget by 65 million dollars.

Our long-standing concern about the management of the Pisgah and Nantahala National Forests here in N.C. has centered on protection of the unique public resources of these forests. Chief among these are their opportunities for recreation, wildlife, wilderness, and preservation of biological/genetic diversity. As old-growth ecology and habitat disappear on private lands, we increasingly look to the national forests to supply this rare resource.

Also, there exists a rapidly shrinking pool of wild and relatively remote areas in these forests that are valued for their special scientific, wildlife, biological and spiritual value.

Sadly, current Forest Service direction places these opportunities in jeopardy, despite continued public outcry. The most visible damage to be seen includes inflated roadbuilding, clearcutting, and encroachments into the remaining steep and wild areas. This is driven by what we feel to be timber quotas which are too high and inappropriate. The Forest Service is skilled at telling the public about the benefits of its aggressive timber program and always has lots of quantifiable data on timbering to plug into various reports. Regrettably, and despite the National Forest Management Act, equal emphasis on wilderness, recreation, wildlife and natural biological diversity is lacking.

For example, to our frustration, we remain unsuccessful in convincing the Forest Service to do a forest-wide study of the supply and demand for wilderness and the potential of the remaining roadless areas to meet that demand. And yet the Forest Service had no difficulty in doing a forest-wide study of timber supply and demand (which showed that demand for timber had not kept pace with supply).

The N.C. Chapter of the Sierra Club supports your efforts to place more emphasis on promoting private forestry and state forestry. We welcome any changes in the Forest Service budget which would place more emhasis on non-timber multiple uses. We ask your help in stemming the "harvest of red ink" by reducing costly and damaging roadbuilding to access below-cost timber projects. We support more money for needed land acquisitions, wildlife, recreation, wilderness management and trail construction.

The N.C. Chapter of the Sierra Club is not opposed to timber harvests on our National Forests. We feel that environmentally responsible harvesting at appropriate levels is possible. However, current management practices remain out of balance in the Pisgah and Nantahala National Forests and probably need Congressional action to restore, in reality, the concept of "maximum public benefits".

I would like to respectfully request that this statement be made a part of the field hearing record. I would like to also request a copy of the entire printed hearing record.

Sincerely,

David Blanchard-Reid

TENNESSEE WILDLIFE RESOURCES AGENCY

ELLINGTON AGRICULTURAL CENTER
P. O. BOX 40747
NASHVILLE, TENNESSEE 37204

October 26, 1989

The Honorable Wyche Fowler, Jr.
Attention: Ben Yarbrough
United States Senate
204 Russell Office Building
Washington, D.C. 20510

Dear Senator Fowler:

This letter is to provide written testimony to the hearing you held October 30, 1989 in regard to the management of the Southern Appalachian National Forests. The Tennessee Wildlife Resources Agency (TWRA) is vitally interested in the management of the Cherokee National Forest in East Tennessee. TWRA was involved as an intervener in the recent appeal of the Cherokee Forest Plan by a Wilderness Coalition.

The Cherokee National Forest is critically important wildlife habitat. There are 867,673 acres of National Park Service and U.S. Forest Service land in East Tennessee. Of that total, 244,108 acres are in the Great Smokey Mountains National Park in Tennessee, and 623,565 acres in the Cherokee National Forest. Approximately 60 percent of the Cherokee is available for multiple use forest management and 40 percent is set aside in Wilderness or other non-management categories. Therefore, the total wilderness type acreage on federal land in East Tennessee is 493,534 acres or 57 percent of the land base. TWRA agrees that some wilderness from the wildlife perspective is benefical. However, the amount in East Tennessee is considered excessive for proper wildlife management.

There are two basic systems of forest management--even-aged management and uneven-aged management. When the management of wildlife is a primary goal, many of the more desirable and beneficial forest cover types are most practically reproduced, developed, and managed with an even-aged forest management system. During regeneration, this will involve clearcutting or removing most of the overstory so the desirable understory trees will have adequate light and space to develop to the pole stage and beyond.

The State of Tennessee

AN EQUAL OPPORTUNITY EMPLOYER

TWRA actually owns or has timber management rights on 150,000 acres in Tennessee. Even-aged management, with regeneration by clearcutting, is one of the tools we use to manage the forest where wildlife habitat improvement is the primary objective. From the fisheries perspective, even-aged management properly applied inflicts fewer disturbances to the landscape thereby lowering stream sedimentation. Clearcutting needs to remain an option for professional resource managers and not be restricted. At a recent Southeastern Association of Fish and Wildlife Agency Conference in St. Louis, myself and the other wildlife agency directors from the Southeast passed a resolution supporting even-aged forest management. This specifically sanctioned clearcutting when properly executed and balanced with other wildlife habitat management practices.

Many areas on the Cherokee need forest management to improve the wildlife habitat but the practice costs more than is generated in timber sales. It is very important for wildlife that all sales below cost not be stopped. Roads are the main reason for below cost timber sales. Roads that are properly engineered, revegetated, and closed produce little soil movement. In fact, vegetation on the closed roads provides an important wildlife habitat component. That component is a permanent opening of grass and low vegetation, not otherwise available in a deep woods setting. The negative wildlife impacts of roads are the use of the road or the disturbance factor and access for illegal hunting. TWRA works very closely with the Forest Service in classifying roads as either open or closed and vigorously enforces closed roads to minimize the negative impacts of roads.

Forest management is a long term proposition. Publicly owned land such as National Forests are the best places to demonstrate the long term stewardship management of renewable forest resources. TWRA supports the continued active management of the Cherokee National Forest with no additional land being restricted by wilderness designation, and no additional restrictions on methods of timber harvest.

Sincerely,

Gary T. Myers
Executive Director

GTM:ksa

November 9, 1989

Senator Wyche Fowler, Jr.
Attn: Ben Yarbrough
Subcommittee on Conservation and Forestry
Agriculture Committee
U.S. Senate
Washington, D.C. 20510

Re: Atlanta Field Hearing Record

Dear Senator Fowler:

I would like to go on record concerning the recent hearings held in Atlanta, Georgia regarding Forest management. I frequently recreate in the area of concern, the Southern Appalachian mountain region, and am very interested in how our National Forests are managed in said region.

Much of my knowledge of the current forestry practices being utilized in the area of concern comes from a document entitled, Mountain Treasures at Risk. This publication is a product of the Wilderness Society, which,I believe, is a very reputable and highly thought of group. According to the aforementioned literature, the U.S. Forest Service is, and has been, engaged in below-cost timber programs on National Forest lands in the Southern Appalachian area. This timber program is damaging non-timber values which I hold of great importance, i.e., potential wilderness, fish and wildlife,scenic beauty, etc. Thus, from my perspective, below-cost timbering in the nation's forests should cease, immediately.

Also of concern is the construction of new permanent timber roads in the mentioned area. It is my understanding that more timber roads are not essential to ongoing management of the forests in question, and would create several problems if constructed. For example, these permanent logging roads contribute to the disappearance of wildlands; silted streams; and marred scenic views. I would urge the Senate to reduce said road construction funding, and use residual savings for land acqusition, fish and wildlife programs, recreational enhancements, etc.

Thank you for the opportunity to comment on this matter. I would ask that my statements be included in the printed record, and that I be mailed a copy of the record, as well.

Respectfully submitted,

Ned Mudd, Jr.

Ned Mudd, Jr.
Attorney
P. O. Box 130411
Birmingham, Al. 35213

ATLANTA AUDUBON SOCIETY
P.O. Box 38214, Atlanta, Georgia 30334
404/321-6079

October 31, 1989

Senator Wyche Fowler
U. S. Senate
Washington, D. C. 20510

Dear Senator Fowler:

On October 25, 1989, a coalition of four Georgia organizations (Friends of the Mountains, Georgia Ornithological Society, Georgia Botanical Society and Atlanta Audubon Society) submitted an appeal regarding the Forest Service's Record of Decision (ROD) and Final Environmental Impact Statement (FEIS) for vegetation management on the National Forests of the Southern Appalachian Mountains. A copy of our appeal is enclosed for your reference.

In particular, the appellants are concerned about the following issues:

o The proposed increased use of herbicides, despite significant data gaps regarding their effect on non-target organisms

o The failure of the FEIS to demonstrate adequate funding for proposed mitigative measures

o An unprecedented request in the ROD to lift an existing national deferral on the aerial application of herbicides

o The failure of the Forest Service to initiate consultation with the Fish and Wildlife Service on a proposal that is likly to adversely affect threatened, endangered, or proposed species, as required by the Rare and Endangered Species Act

o The failure of the FEIS to demonstrate that appropriate State wildlife agencies and other species authorities were contacted to identify coordination measures that should be directed toward ensuring species viability and preventing negative population trends

o The failure of the proposed vegetation management program to preserve and enhance the natural diversity of the Southern Appalachian National Forests, as required by the National Forest Management Act of 1976.

We urge you to express your concerns on these issues to F. Dale Robertson, Chief, U. S. Forest Service, and ask him to send these documents back to the Regional Forester for improvement.

We appreciate the concerns you expressed during the recent hearings in Atlanta regarding below-cost timber sales and excessive road building on the National Forests. In particular, we support:

o Elimination of below-cost timber sales

o Reduction in road building and projected harvest levels, with an increased emphasis on other forest uses

o Increased designation of wilderness areas

o Capital Gains benefits and other incentives to encourage private forestry

o Reevaluation of indicator species, a reduced emphasis on game species, and an increased level of funding on the needs of rare and endangered species

o A shift away from timber sales near the habitat of the red-cockaded woodpecker.

Regarding the issue raised during the hearing that extra wilderness would limit species options, we would like to point out that this would be a valid assumption if all of the National Forests were in old growth. However, natural events such as fire and windthrows in the wilderness areas, in addition to the extensive management activities on the non-wilderness areas, act to maintain more than sufficient early to mid-successional habitat.

Finally, regarding the issues of poaching and illegal marijuana growing on the National Forests, we submit that the extensive network of roads encourages access for these illegal activities.

Thank you again for your continued interest in these issues.

Sincerely,

Frances M. Hallahan

Frances M. Hallahan
Chairman, Forest Issues Committee

enclosure is retained in the subcommitte file

TEXAS COMMITTEE ON NATURAL RESOURCES
4144 COCHRAN CHAPEL ROAD
DALLAS, TEXAS 75209
(214) 352-8370

October 31, 1989

TO THE HONORABLE WYCHE FOWLER, CHAIRMAN
CONSERVATION AND FORESTRY SUBCOMMITTEE
SENATE AGRICULTURE COMMITTEE

STATEMENT FOR THE RECORD
HEARING ON OCTOBER 30, 1989, ATLANTA, GA.
By Edward C. Fritz, Chair
Forest Task Force

On almost every national forest in the United States except Southern California, the Forest Service is destroying native diversity by indiscriminate use of even-age management. This covers close to 89 million acres of the available commercial timberland.

Even-age management focuses primarily on raising a single species in each stand, generally the fastest growing commercial tree. In some regions, like the Appalachians, the Forest Service favors two or three species per stand. Beyond the favored species, the Forest Service deliberately suppresses other vegetation that might compete with commercial types for sun, water, and nutrients.

In contrast, many private commercial foresters, from coast to coast, use a silvicultural system that saves most of our native diversity. They call it individual-tree selection management or natural stand management.

I attach and incorporate pages 11-24 of my book, Clearcutting: A Crime Against Nature, published by Eakin Press in September, 1989. These pages tell of the slaughter of native diversity by even-age management, which the book calls "clearcutting."

Many of us use the term, "native", instead of "biological", because the Forest Service claims that the juxtaposition of even-aged stands of various ages, together with the weeds that come up for several years after even-age logging, create a kind of biological diversity. But it certainly is not native diversity.

My book also describes and depicts many selection management forests. For example, Leon Neel, of Thomasville, Georgia, operates 73,000 acres under selection in Southern Georgia. Red-cockaded woodpeckers utilize some of these stands as their habitat.

In the House of Representatives, H.R. 2406 would strengthen the National Forest Management Act by protecting native diversity and restraining even-age management in the available commercial timberlands of our national forests. We strongly urge enactment of that bill.

Signed: Edward C. Fritz
Edward C. Fritz, Chair
Forest Task Force
Texas Committee on Natural
Resources

P. O. Box 263
Highlands, NC 28741

November 3, 1989
11:55

Senator Wyche Fowler, Jr.
Attn: Ben Yarbrough
Subcommittee on Conservation and Forestry
Agriculture Committee
U.S. Senate
Washington, DC 20510

Re: Atlanta Field Hearing Record

Dear Senator Fowler:

Enclosed is a personal statement on the subject of National Forest road construction. I request that this statement be included in the printed record of the Atlanta Field Hearing. Please send me a copy of the printed record.

I wish to take this opportunity to thank you for your vigorous efforts this year to reduce funding for new road construction on our National Forests. Please continue these efforts. Funds saved by deletion of new road construction should be ear-marked for long-neglected other programs, such as old-growth restoration, hiking trails, and acquisition of new lands.

Sincerely,

Robert Zahner

Robert Zahner

STATEMENT OF ROBERT ZAHNER, PROFESSOR EMERITUS, CLEMSON UNIVERSITY, REGISTERED FORESTER IN THE STATE OF NORTH CAROLINA, AND MEMBER OF THE SOCIETY OF AMERICAN FORESTERS, ON NATIONAL FOREST ROAD CONSTRUCTION

I oppose construction of new logging roads to access timber on the National Forests of the Southern Appalachian Mountains. This practice is in direct conflict with other forest benefits, that is, wildlife habitat, water quality, hiking recreation, visual quality, and the preservation of fragile biotic communities. In my opinion, the greatest need on these National Forest lands is in the benefits derived from unroaded mature forest ecosystems. Therefore the higest end use for our public lands in this time of global forest destruction lies in the preservation of what little unroaded forest we have left.

STATEMENT
OF
FOREST FARMERS ASSOCIATION
U.S. SENATE
AGRICULTURE, NUTRITION AND FORESTRY COMMITTEE
CONSERVATION AND FORESTRY SUBCOMMITTEE
ATLANTA, GEORGIA
OCTOBER 30, 1989

This statement is for the record on behalf of Forest Farmers Association, an organization of private timberland owners concentrated in 15 southern states. These private owners represent some 40 million acres of timberland across the South.

Shifting Timber Products from Federal to Private Land

There have been several proposals by environmentalists that timber cutting be halted on national forests. The proposals suggest that timber production from these federal lands be shifted to private lands.

Private forest farmers already are producing at higher levels than capacity. A large percentage of these landowners are harvesting their timber without replanting because of the tax disincentives to long-term investments. The loss of capital gains provisions and passive activity loss provisions in the Tax-Reform Act of 1986 caused forest farmers to reevaluate their position of maintaining investments in timber production which requires 30 to 40 years.

Another reason forest farmers are under pressure is due to increasing competition for additional land uses. Recreation, hunting, fishing and retirement homes are causing many timberland owners to restructure their timber management plans. In some areas of the Southeast, timber production on private lands is becoming a low priority objective.

Since the U.S. Forest Service projects that timber demands will double by the year 2030, we need maximum timber production on both federal and private lands. Private lands, both industrial and nonindustrial, are shifting to shorter rotations (25 to 35 years) resulting in smaller trees. Most of the larger, quality trees used in manufacturing lumber and specialty products remain on national forests. So the nation's wood needs require timber from those federal lands.

Forest Service Road Construction Program

Forest Service roads are usually designed at a higher standard than roads on private lands because of differences in objectives. Private land roads are usually designed to harvest an area one time in maybe 25 years. The road is then for the landowner's own private use and not open to the public.

The Forest Service has a multiple-use policy which is mandated by Congress to provide, in many cases, permanent public access to recreation areas and use by hunters, fishermen, etc. These roads are also used to access forests in case of wildfires when large tanker trucks are required. Public use requires a higher standard road because of safe access into the national forests.

Several of our members indicated that they use national forest roads to access their lands adjoining federal lands. A forest products company member said that roads are a necessary part of timber and land management and his company has approximately one-third higher density of roads than the Forest Service.

Congress also mandates the cap on timber sales for national forests. Should road construction funds be reduced, the goal set by Congress on the amount of timber to be produced could not be met. This would reduce timber receipts resulting in reduced payment to counties to be used for schools and roads and cause the loss of jobs dependent on harvesting and processing timber.

Continuous production of timber is one of the two original reasons for establishment of the National Forest System in 1897. This nation will continue to show increased need for timber production in the future requiring maximum timber production from both federal and private lands.

If these demands are not met, then we will have to turn to Canada and South America for our wood requirements. Congress is continually battling to reduce America's trade deficit and certainly would not be in favor of this alternative.

Testimony: Hearing on Forest Service Management.
Committee in Agriculture,Nutrition and Forestry,
Atlanta,Ga Oct. 30
Theme: Forests have important values in addition
to the commercial value of harvestable products

Reprinted from: Forests for People
pp. 101-105. Proc. Soc. Amer.
Foresters 1977 Natl. Convention.
Soc. Amer. Foresters, Washington,
D.C.

THE LIFE SUPPORT VALUE OF FORESTS

Eugene P. Odum

Institute of Ecology

University of Georgia, Athens

The time may soon come, if it is not already here, when a forest will be valued as much for its life-support capacity as for its yield of products and services. By life-support we are referring to the role of forests, along with other vegetated ecosystems, in maintaining the quality of air, water, and food along with other energy necessary for the human civilization to survive and prosper. It is not so much that we fail to recognize the value of vegetation in supporting vital life processes such as breathing, eating, and drinking, because we certainly do in a vague, general sort of way. But in the past we have not been able to satisfactorily quantify these values in competition with more materialistic ones. Thus, life support values of the forest ecosystem have too often ended up at the bottom of a list of "multiple uses" being considered (if they appear at all) even though common sense tells us that life-support should rate among the very highest and best uses for forests.

In this presentation I shall review the several major categories of life-support values of forests, and suggest how we might put a better price tag on what have, for too long, been considered "free goods". In so doing, we will point up what becomes more obvious every day, namely, that there are serious failures in the market system that, in one form or another, allocates resources throughout the world. Because most values associated with forests are so grossly "underpriced", land for forests tends to lose out in competition with other land uses that currently have higher values on the market scale. Unless this inequity can be corrected, preservation of forested lands in the future will be increasingly difficult. Certainly the fate of forests will depend more and more on economic and social considerations and less and less on scientific and technical matters. Which is to say that we know more about how to manage forests than we do about how to cope with the economic, social, and political forces that lead to deforestation.

As the price of energy rises, forest management will become increasingly difficult as new demands are placed on forests, including biomass production as a source of energy and industrial chemicals ~~are~~ discussed in one of 95 yesterday's sessions at this conference. Experience in those countries which now depend on wood as a major energy source indicate that it is nearly impossible to preserve forests in good shape when the demands of rapidly growing human populations exceed any reasonable possibility of increasing the sustained yield growth. Thus, there is a real question whether wood and other biomass can really be a major sustainable energy source, even at the present level of world population. More desirable, I believe, is to plan for biomass energy to be auxillary to other forms of fuels and solar energy. Certainly, wood and other forms of biomass that are wasted in current harvest practices should provide a valuable supplementary source of energy and chemicals.

Again, we come back to my main theme, that only if life-support functions are given their true value, will it be both desirable and possible to have at least 30% of the land area covered by self-sustaining forests as is the case today. Much will depend on how society chooses between available options for energy sources, and, especially, how well sources are quality matched with uses. By this we mean using low quality sources, such as direct sunlight, for low quality work involved in heating dwellings, and conversely using high quality sources, such as oil or wood, for high quality work involved in running machines or producing industrial products and building materials. Such quality matching is necessary if we are to achieve a high "second law thermodynamic efficiency" (see Metz, 1975, for an explanation of the difference between 1st and 2nd law efficiency). From this viewpoint, trees in a high quality forest that provides life-support and yields lumber for industrial products on a sustained basis are much too valuable to burn merely to obtain heat, when direct sunlight or waste products can provide such a need.

THE KINDS OF FORESTS

Since the word "forest" brings to mind a rather wide spectrum of ecosystem types which clearly have different values from the human viewpoint, it is important that we sub-classify. For the purposes of assessing life-support values, I would suggest that we think about three categories as follows: (1) the natural or semi-natural (managed) forest with a diversity of species and age classes, (2) the tree plantation or "short-rotation forest", usually a monoculture, and (3) the urban forest which forms the green canopy over cities and suburbs. Some "purists" among ecologists question whether the plantation is really a "forest", but rather should be classified as a "crop". I presume that as long as plantations are managed by foresters rather than be agronomists, we should keep them in the forest realm, but we must realize that as the yield is increased by shortening the rotation, some life-support values are decreased proportionally as we shall note in the subsequent discussion. Such inverse relationships are part of that basic principle that one cannot maximize for everything at once.

LIFE-SUPPORT FUNCTIONS

In thinking about life-support, a spacecraft analogy is useful since the earth is indeed a spaceship. Recall that the only failure in the Apollo series of "moon shots" occurred when the life-support module of Apollo-13 malfunctioned and the craft had to return to mother earth without completing its mission. Forests function as an important part of the earth's life-support module in the following three ways:

1. *As a carbon "sink" and climate stabilizer*. Because of the capacity of large trees and associated organic soils to take up and hold carbon dioxide, forests guard against rapid change in atmospheric CO_2, thus reducing the chances for a disastrous shift in world climate. Meterologists (see, Bryson, 1974) now generally agree that very small changes in two atmospheric variables, CO_2 and turbidity, can cause rapid climate changes, most of which would reduce the carrying capacity of the earth for civilization as we now know it. Bolin (1977) presents data indicating that deforestation and desertification (creation of man-made deserts) may be major factors along with the burning of fossil fuels in bringing about increased CO_2 concentration in the atmosphere. Bolin's estimates of current carbon inputs into the atmosphere are summarized in Table 1. While the area occupied by forests is holding its own or even increasing in North America and Europe, much the opposite is the case over most of the land area of the world. Worldwide deforestation exceeds reforestation by about 8 to 3 so that there is an estimated net input of CO_2 into the atmosphere (Table 1). As forests are cleared for agriculture, there is a further input of CO_2 as the soils are plowed and cultivated. And, since wood is a major energy source in many undeveloped countries, wood burning adds additional CO_2 to the atmospheric pool. In contrast, of course, when wood is used for lumber there is less immediate or sudden release of CO_2. According to the data in Table 1, the combined effect of deforestation, agricultural use of former forest lands and the use of wood as fuel now accounts for about one-fifth of the total annual man-made input of 5×10^9 tons of carbon. Fortunately, only 40-50% of the input remains in the atmosphere, the other 60% or so goes into the ocean sink. An estimated 90×10^9 tons has accumulated in the atmosphere since the turn of the century, increasing the CO_2 concentration in the air by 35 to 50 ppm. Just what effect this is now having on climate is, of course, a matter of current debate, but any further increase is cause for alarm.

Granting that these data are "soft", that is, subject to error due to gaps in knowledge or uncertainty about assumptions, there can be little doubt that large masses of forests do work to dampen unwanted rapid shifts in climatic patterns.

2. *As a moderator for the downhill flow of water and sediment in hydrological and geological cycles*. As solar energy powers the uphill part of the hydrological cycle, the return or downhill flow part of the cycle provides energy for useful work of vital benefit to man. The immense economic value of such natural work is seen, not only in the potential for hydroelectric power, but more generally in the capacity of a forested watershed to provide high quality water for a city at very low cost. The cost of getting such water by artificially reprocessing waste water or desalinating seawater is hundreds or even thousands of times as great because expensive fuels would have to be used to power such substitute recycling systems.

It is interesting to note that the objective of the first work at forest hydrological experiment stations was to increase water yields from watersheds, by reducing the vegetative cover (by thinning or replacing trees with grass or shrubs) so as to reduce evapotranspiration and allow more of the rainfall to pass through as stream flow output. It was soon discovered that increased water yield comes at the expense of water quality which is reduced by the increased mineral and sediment concentrations in runoff. Acceleration of nutrient losses also reduces fertility of the watershed if rate of loss exceeds recycling from the substrate. All of which conforms to another basic principle that the optimum is rarely the maximum, or (to put it another way) that one cannot maximize for quantity and quality at the same time.

Table 1. Estimated annual input of carbon (in form of carbon dioxide) into the atmosphere and accumulated input since the turn of the century. Data from Bolin, 1977.

	10^9 Tons/year
Net deforestation	0.5
Loss from agricultural soils	0.3
Burning wood as fuel	0.3
Sub-total	1.1
Fossil Fuel consumption	4.0
Total annual input	5.1
Total input since turn of century	210 X 10^9 tons
Accumulated in atmosphere	90 X 10^9 tons
Increased CO_2 concentration	35 - 50 ppm

3. *As a filter for pollutants, including gaseous pollutants, nutrients in domestic wastes, organics in industrial wastes and noise.* For centuries man has used rivers, estuaries, and other bodies of water as the most convenient "free sewers" for disposal of wastes. Now, the potential for land idsposal is receiving increasing attention with numerous experiments underway. It is likely that forested areas will be more and more pressed into service as tertiary treatment plants. Thus, forests in the vicinity of urban-industrial areas have a direct local, as well as a general global value as air and water purifiers. Land has some advantages over water for disposal of secondarily-treated domestic wastes. Eutrophication of a body of water by nutrients in such wastes generally reduces water quality and limits the human use of the environment. Eutrophication of a forest, especially one growing on poor soil, would, in general, increase the quality of the forest and its products.

Swamp forests and other wetlands have an especially high value as potential waste assimilators because of the presence of a well developed anaerobic sediment layer. Microorganisms in this zone function to "gasify" nitrates, sulfates, carbonates, and other salts releasing gaseous nitrogen, hydrogen sulfide, methane, and so on to the atmosphere. Thus, wetlands are more than just a passive sink for excess nutrients since they "pass on" recycled products. Such an output makes room for a continuous flow of recyclable inputs. Wetlands, therefore, have a value in global cycling that more than justifies their preservation.

NATURAL FORESTS VS. PLANTATIONS

Granting that other types of green cover, as well as many man-made devices, provide many of the life-support services just enumerated, natural forests are very special in this category because of their large biomass or "living weight". Even though forests now occupy only 30% of the earth's surface, they account for 90% of the world's biomass. Thus, mature forests are especially effective as buffers in maintaining desirable stability of atmospheric and water cycles and in ameliorating the "disordering" effects of man's activities. In contrast, plantations managed on short rotation are less effective as carbon sinks or watershed stabilizers, not to mention their much lower value for wildlife and recreation. However, because fertilization will be necessary for maintaining a cycle of frequent harvest and replanting, plantations may have a capacity for the disposal of treated wastes. Recognition of the basic difference between a natural and an artificial forest can lead to a sensible land-use plan with plantation on level topography managed for their yield, and natural forests on slopes managed to improve their life-support quality rather than to increase the harvest of wood products. Thus, we should reduce, not increase, cutting of hillside and bottomland natural forests and look to plantations on level, well-drained land for accelerated production of fiber.

Urban forests, of course, are already highly valued for their protection against weather and storms, and for their esthetic and recreational values. A lot with trees is valued higher in most real estate markets than is an open lot. High cost of maintenance is the big problem with urban green belts and parks which are generally not capable of self replacement because of the intensive groundlevel activities that destroy the understory and prevent seedling reproduction. It would seem that with a little effort, urban forests could become self-maintaining, with perhaps the sale of firewood paying for some of the costs.

MARKET FAILURES

Economists are in general agreement that the market system, which is so efficient when it comes to allocating man-made goods, often fails to function in the public interest when it comes to the allocation of natural resources. Such "market failures" occur on several levels, as for example,

(1) failure to include external costs, such as pollution costs, in the pricing of manufactured goods, or electric power, (2) failure to place a value on the "free goods", such as water or air, and (3) failure to include life-support values as we have enumerated them in this paper.

All of these inequities result in an underpricing of most natural resources which actually reach the market place, and no pricing at all for many services which benefit the public in general rather than individuals. Water is a good example of a product of the work of nature which is much more highly valued in the market for production of man-made goods than it is for the support of human life. Gertel and Wallman (1960) have calculated the economic yield per unit of water for various uses, finding that the return on a gallon of water is much higher when water is used for industry or for mining than when used in agriculture to produce food. Thus, where water is scarce, as in western USA, allotment to agriculture (and ultimately to forests) will decrease in competition with other uses. Theoretically, the market would eventually act to correct this situation since as food and water become scarce, the price would rise and more water would be directed from manufacturing to agriculture and direct human use. However, before the "correction" could occur irreversible damage may have been done to the resource and the economy. It would be much more prudent to recognize these shortcomings of the market system now, and move to correct them before it becomes absolutely necessary.

Westman (1977) has reviewed some of the remedies for these market failures which relate to nature's services. Among the possibilities include estimating as a part of benefit/cost analysis (1) the cost of the damage of meterological changes, man-made floods, acid rain, and so on (see Mark and Stuart Alexander, 1977), (2) replacement costs, as for example, cost of nitrogen fertilizer necessary to replace natural nitrogen fixation which is apparently knocked out by heavy air pollution (see Lind and Wilson, 1941), (3) removal costs, as for example, waste treatment costs, as already mentioned, and (4) levying of "pollution tax" on releases into public waters or lands as means of encouraging waste treatment.

Because life-support is in reality "priceless", many thoughtful resource scientists feel that we should not try to put a monetary value on it, but instead designate large areas of the natural environment as the necessary life-support module for spaceship earth and take it out of the market entirely. This is, of course, partly what we do when we develop a large national forest and parks network on land that is understood to be no longer for sale. However, National Forests and the like by no means free from pressure from the market place, as witness the strong political pressure of recent time for more clearcutting in order to get more dollars from the National Forests.

Thus, while removal from the market is undoubtedly the preferred solution for preservation of life-support environment, it is not at the present time an adequate one. Therefore, we should also strive to place life-support values on a more competitive basis within the economic system. One way to do this is to add to the recognized values for products estimates for waste assimilation, air and water purification and so on based on calculating how much it would cost to do such work if the forest was not there to do it "free" (i.e., the replacement cost approach). Another way is to use energy as a common denominator and then estimate the rate of conversion of solar energy, or the "gross production" of the forest or other ecosystem. Since energy and money are counterflows one can convert energy flow into money flow on the basis of how much energy is needed to produce a given amount of national wealth. This "holistic" approach avoids having to sum up piecemeal values, many of which are very hard to verify. We have recently used both these approaches in an attempt to put dollar values on coastal marshes and estuaries (Gosselink, Odum, and Pope, 1973). By either method, I think we demonstrated that the life-support value to the public of the most productive marshes is about 40 times the value of the yield of fishery products which can be harvested. Much the same would be true for forests. The annual yield of wood products is measured in the hundreds of dollars per acre while the total value based on work capacity is to be measured in the thousands of dollars per acre.

To get people to start thinking about Life Support values, we could suggest adding a phrase or so to the educational billboards that the U. S. Forest Service places at the entrances to or viewpoints within National Forests. The following is a copy of such a sign with added wording underlined:

UNDER FOREST SERVICE MANAGEMENT THIS FOREST PROVIDES LIFE SUPPORT FOR INDUSTRIAL AND URBAN AREAS WHILE AS A BONUS IT PRODUCES TIMBER, FORAGE, WILDLIFE, FISH AND ENERGY ON A SUSTAINED-YIELD BASIS FOR MAXIMUM PUBLIC BENEFIT. MULTIPLE USE MANAGEMENT IN ACTION!

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7201 Tyner Road
Chattanooga, TN 37421
October 31, 1989

S.47

The Honorable Wyche Fowler
Subcommittee on Conservation
and Forestry
Senate Office Building
Washington, D.C. 20510

Dear Mr. Fowler:
Please enter this letter and attachment on biological diversity and its effects on wildlife management in the Cherokee National Forest into the record for the October 30th hearing in Atlanta.

There was a lot of discussion at the hearing on stimulating production on private lands. In conjunction, I think landowners should also be provided objective information about managing for wildlife. Many foresters and biologists are trained that timber production is the primary goal and that game populations are of only secondary importance. In some areas, the driving potentials may come from fertilised agricultural operations or unmanageable swampy bogs so that forestry decisions may have little chance for negative impact on overall populations. But where the forest must provide the food supply, a landowner may discover that he has made a decision a few years back that may eliminate deer from wanting to use his property for much of his lifetime with no economical means to make changes.

I am also concerned that the Forest Service research budget has been restricted. I feel that the Forest Service Silviculture Lab at Sewanee, Tennessee was closed last year because the lab personnel thought it was important to look for low cost techniques for improving forest resources.

National Forest logging used to be done with roads that would revert to natural vegetation. But about 15 years ago, they started moving much more dirt making permanent road banks with cuts and fills and culverts that must be maintained forever.

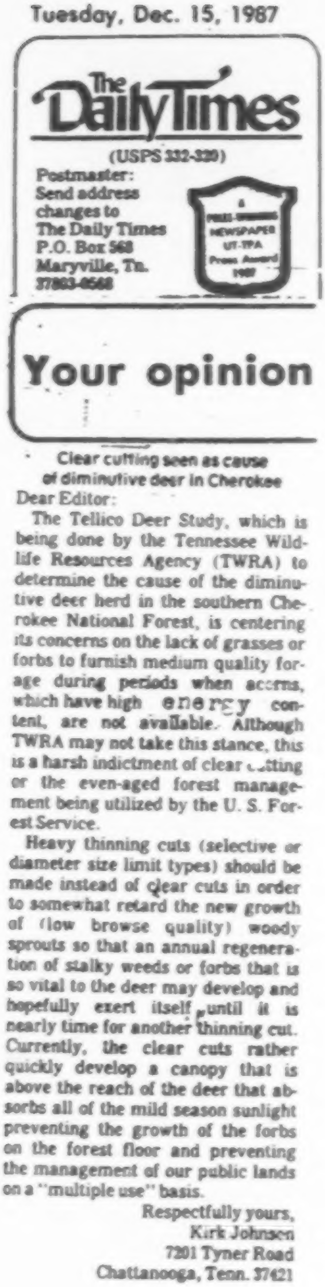
Construction should return to the old standards that allowed roads to close themselves. About 75% of the logging roads in the Cherokee National Forest are never opened to the public. It is quite disconcerting to many to find as good or higher quality roads behind the locked gates as the main forest roads.

Respectfully yours,

Kirk Johnson

Kirk Johnson

cc: The Honorable Albert Gore, Jr.
The Honorable Jim Sasser
The Honorable John Duncan, Jr.
The Honorable Marilyn Lloyd



Tuesday, Dec. 15, 1987

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Your opinion

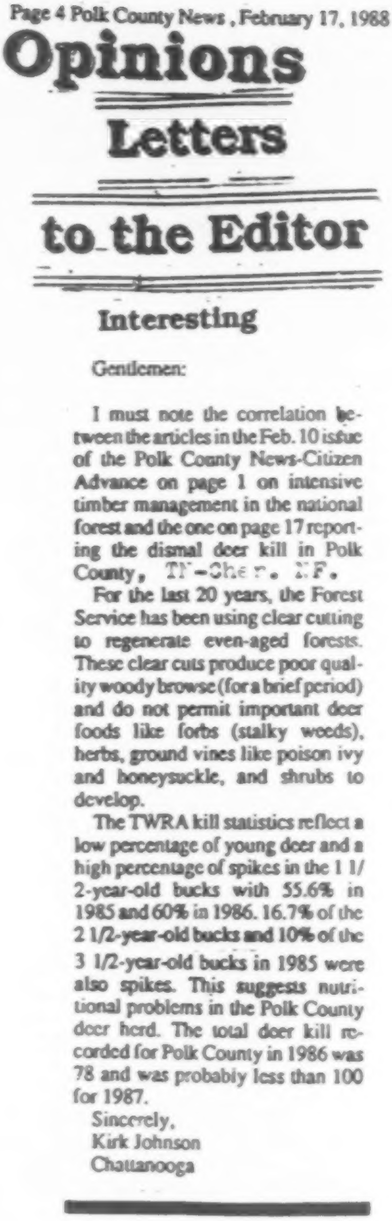
Clear cutting seen as cause of diminutive deer in Cherokee

Dear Editor:

The Tellico Deer Study, which is being done by the Tennessee Wildlife Resources Agency (TWRA) to determine the cause of the diminutive deer herd in the southern Cherokee National Forest, is centering its concerns on the lack of grasses or forbs to furnish medium quality forage during periods when acorns, which have high energy content, are not available. Although TWRA may not take this stance, this is a harsh indictment of clear cutting or the even-aged forest management being utilized by the U. S. Forest Service.

Heavy thinning cuts (selective or diameter size limit types) should be made instead of clear cuts in order to somewhat retard the new growth of (low browse quality) woody sprouts so that an annual regeneration of stalky weeds or forbs that is so vital to the deer may develop and hopefully exert itself until it is nearly time for another thinning cut. Currently, the clear cuts rather quickly develop a canopy that is above the reach of the deer that absorbs all of the mild season sunlight preventing the growth of the forbs on the forest floor and preventing the management of our public lands on a "multiple use" basis.

Respectfully yours,
Kirk Johnson
7201 Tyner Road
Chattanooga, Tenn. 37421



Page 4 Polk County News, February 17, 1988

Opinions Letters to the Editor

Interesting

Gentlemen:

I must note the correlation between the articles in the Feb. 10 issue of the Polk County News-Citizen Advance on page 1 on intensive timber management in the national forest and the one on page 17 reporting the dismal deer kill in Polk County, TN-Cher. NF.

For the last 20 years, the Forest Service has been using clear cutting to regenerate even-aged forests. These clear cuts produce poor quality woody browse (for a brief period) and do not permit important deer foods like forbs (stalky weeds), herbs, ground vines like poison ivy and honeysuckle, and shrubs to develop.

The TWRA kill statistics reflect a low percentage of young deer and a high percentage of spikes in the 1 1/2-year-old bucks with 55.6% in 1985 and 60% in 1986. 16.7% of the 2 1/2-year-old bucks and 10% of the 3 1/2-year-old bucks in 1985 were also spikes. This suggests nutritional problems in the Polk County deer herd. The total deer kill recorded for Polk County in 1986 was 78 and was probably less than 100 for 1987.

Sincerely,
Kirk Johnson
Chattanooga

TENNESSEE CITIZENS FOR WILDERNESS PLANNING,
FOR THE PRESERVATION AND ENJOYMENT OF OUR WILD LANDS AND WATERS,
Oak Ridge, TN, November 13, 1989.

SENATOR WYCHE FOWLER, Jr.,
Attention: Ben Yarbrough, Subcommittee on Conservation and Forestry, Agriculture Committee, U.S. Senate, Washington, DC.

Re: Atlanta Field Hearing Record.

DEAR SENATOR FOWLER: Please find enclosed a statement on forest management practices in the national forests of the Southeast. Our organization has been active in the pursuit of wilderness in the Cherokee National Forest and is pleased that you have brought this opportunity to us in the region to comment on how our forests are being managed.

I would appreciate your printing our statement in the hearing record of the October 30 field hearing in Atlanta. I would also appreciate being put on the mailing list to receive a copy of the record when it is printed.

Again, we appreciate your interest in this issue and look forward to working with you and the subcommittee in the future.

Sincerely,

MARTHA J. KETELLE,
President.

PREPARED STATEMENT OF TENNESSEE CITIZENS FOR WILDERNESS PLANNING ON FOREST MANAGEMENT IN THE SOUTHEAST

Tennessee Citizens for Wilderness Planning (TCWP) is a membership organization representing over 400 individuals, primarily in Tennessee, with an interest in protection of the State's natural resources. Since our founding, 22 years ago, we have worked on such issues as Federal protection for the Obed and Big South Fork Cumberland Rivers, increased wilderness designations in the Cherokee National Forest, passage of the State Wild and Scenic Rivers Act, and local greenbelt and open space initiatives in communities.

TCWP is pleased that the subject of management practices in the national forests of the Southeast is receiving congressional attention. We would like to make the following comments for the hearing record on forest management.

Below-Cost Timber Sales—TCWP opposes below-cost timber sales in the Cherokee. The nontimber value of the national forest in Tennessee is being lowered as a result of these sales. Our scenic resources, fish and wildlife, water quality, and potential wilderness areas are impacted with every sale.

Members of our group enjoy the national forest for its recreation value and note that those areas which have been cut in recent years provide a much reduced experience to recreation users.

Road Construction—The Cherokee National Forest already contains a considerable mileage of roads, adequate for nontimber uses such as hunting and fishing, and other types of recreation. Construction of new road miles has an associated environmental cost; increased siltation in streams, scarred visual resources, and reduction of habitat for bear and other species.

TCWP questions the need for additional road miles in the national forest and urges that current plans for more road building be suspended pending justification of their need.

Forest Service Budget—TCWP is pleased that the subcommittee under Senator Fowler's leadership has reduced road construction funds this past year. We hope that this will be a continuing priority for Congress in the USFS authorization and appropriation and that funds can be redirected to programs such as trail building and maintenance, soil and water conservation efforts, fish and wildlife enhancement, and land acquisition, which have been neglected in recent years.

Wilderness Areas—TCWP would note that the average acreage devoted to wilderness in the National Forest System, 15 percent, is higher than the percentage for any of the national forests in the Southeast. With areas such as the Great Smokies National Park, which is in large part managed as wilderness, receiving the highest visitation of any national park in the country we believe the demand exists in the Southeast for more such areas. The national forests are our last remaining resource from which additional wilderness areas will come, and we urge the subcommittee's attention to the many values that come from this designation.

Finally, we support the study and designation of eight rivers within the Cherokee National Forest as Wild and Scenic Rivers. The demand for river recreation on these and similar streams is increasing in the Southeast and we would like to see the rivers in the national forest managed to meet the demand for boating, fishing, and scenic river corridors.

Summary—TCWP appreciates the attention that the subcommittee is bringing to forest management practices in the national forests of the Southeast. We place a high value on these lands and their potential for future wilderness areas, wildlife habitat, protecting species diversity, and providing passive recreation opportunities.

We believe that private land in this part of the country can meet the demand for timber in the region with less cost to the environment. The national forests are generally more remote, less accessible to timber operations, and represent our largest contiguous acreages of steep forested lands with attendant species diversity, relatively high water quality and visual integrity. For these reasons, we support their protection from additional roadbuilding, logging operations, and other activities that impair their comparatively high quality natural environment.

EDITOR'S NOTE.—The following material is retained in the subcommittee file:

A paper entitled: "Ecological Uses of Vertebrate Indicator Species: A Critique," printed in the Conservation Biology, volume 2, No. 4, December 1988, submitted by Lisa C. Huff.

The enclosure, Appeal of the Record of Decision Notice and Final Environmental Impact Statement for Vegetation Management in the Southern Appalachian Mountains, issued by Regional Forester John E. Alcock on July 27, 1989, referred to in the October 31, 1989, letter of Frances M. Hallahan, chairman, Forest Issues Committee, Atlanta Audubon Society.

Edward C. Fritz, chair, Forest Task Force, Texas Committee on Natural Resources, attached pages 11-24, "Clearcutting: A Crime Against Nature."

A letter from the Northern Shenandoah Valley Audubon Society, dated November 8, 1989, to Senator Wyche Fowler, Jr., commenting on sales-below-cost and forest road construction.

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